TS200
H26
v.140
pt.2

Net Paid Circulation This Issue 20,515

HARDWARE AGE

Published
Every Other Thursday

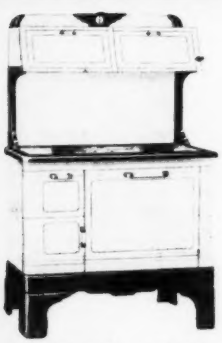
Dec. 30, 1937
In Two Sections—Section 1

Warmest Greetings from STOVE HEADQUARTERS

To the thousands of retail and wholesale stove distributors throughout the nation, Gray & Dudley extends greetings and best wishes for a Happy and Prosperous New Year.

We like to think of our work in the world as something more than commercial. The products that we make and that you distribute bring convenience, comfort and cheery warmth to millions of people. In this, we are co-workers in making happier homes . . . and what could be a more satisfying endeavor?

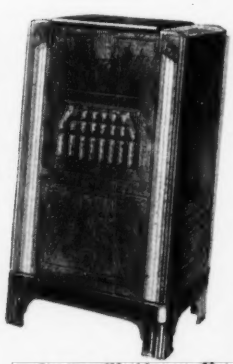
In appreciation of your confidence and co-operation, we pledge you our earnest endeavor to make 1938 a year of conspicuous range and heater progress . . . a year of greater opportunity for you.



No. 3718-4-C — Martha Washington Cast Range with high closet.

No. 374-4-L—Washington Table Top Electric Range.

General Washington Hot Blast Super Furnace (Coal)—4 sizes.



Century Washington Hot Blast Oil Burning Furnace—3 sizes.

GRAY & DUDLEY COMPANY
Nashville · Tennessee
Established 1862

The **WASHINGTON LINE**
"WORTHY OF THE NAME"

Editorial Index - Page 5

Advertising Index - Page 72

HAPPY OLD YEAR!

Grand guy! You've helped hardware stores do a whale of a lot of business. You told 'em good merchandise wasn't all. We reminded 'em the Wooster 3-Point Merchandising System provided not only the world's best known brushes, but also a complete, condensed line of only 26 brushes; a scientific selection of fastest selling numbers; plus three eye-grabbing, sales-making displays! And how stores that put in Wooster's system have sold brushes! So long, Old Year! You've been a swell friend to those thousands of dealers to whom you introduced the Wooster 3-Point Merchandising System.

PEPPY NEW YEAR!

So you're going to town, lad? Well . . . pass along word that Wooster has more new ideas to keep up brush sales. Whisper a tip about our new angular sash tool, made to lay paint on sash without so much as leaving a hairline on glass or trim! Give 'em a hint on our new Variety Vender, part of the 1938 3-Point system, a display that will sell dime-to-dollar brushes like hot cakes. Tell 'em how Wooster is going to have . . . well, don't give away too many secrets yet. But tell 'em to be sure to talk to their nearest Wooster distributor right after the whistles have stopped tooting!

IF IT'S WORTH PAINTING • IT'S WORTH A WOOSTER BRUSH •

WOOSTER 3 POINT MERCHANDISING SYSTEM

for Selling

WOOSTER FOSS-SET GUARANTEED USE IN ANYTHING BRUSHES

THE WOOSTER BRUSH COMPANY • WOOSTER, OHIO

an "END-OF-THE-YEAR" MESSAGE *from*

TRADE YALE MARK

to the merchants who sell our goods . . .

The usual "end-of-the-year" thoughts come to us as we write this message to every hardware merchant. We hope that 1937 has been good to you and that our cooperation has helped to make it good.

During the past year we have developed new products and new sales helps—the "Morim", a YALE Auxiliary Lock of unusual design and attractiveness . . . the Tubular Type YALE Deadlocks and Deadlatches, fine quality mortise locks of greatly simplified application . . . new YALE Padlocks to speed up your sales and give you a lead over competition . . . YALE Oil to offer you a new profit field . . . new YALE Merchandisers to attract customers and sell locks.

We have kept up a consistent campaign of national advertising reaching many millions of families. We have supplied displays and other advertising material to help you cash in on our efforts.

NOW—WHAT OF 1938?

Count on us to do our part as always — continued advertising, more and better sales helps, constant effort to improve our lines and add new items — *and steadfast loyalty to the hardware merchant, the man who sells our goods!*

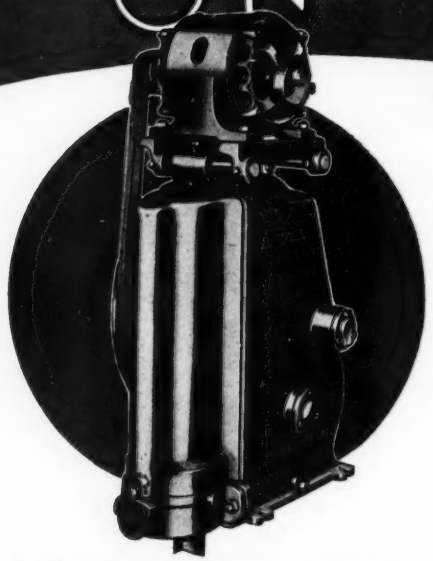
Your part is easy! Stock and display YALE Locks, Door Closers and other YALE products — *standardize* on YALE — make full use of our cooperation for bigger-than-ever results.

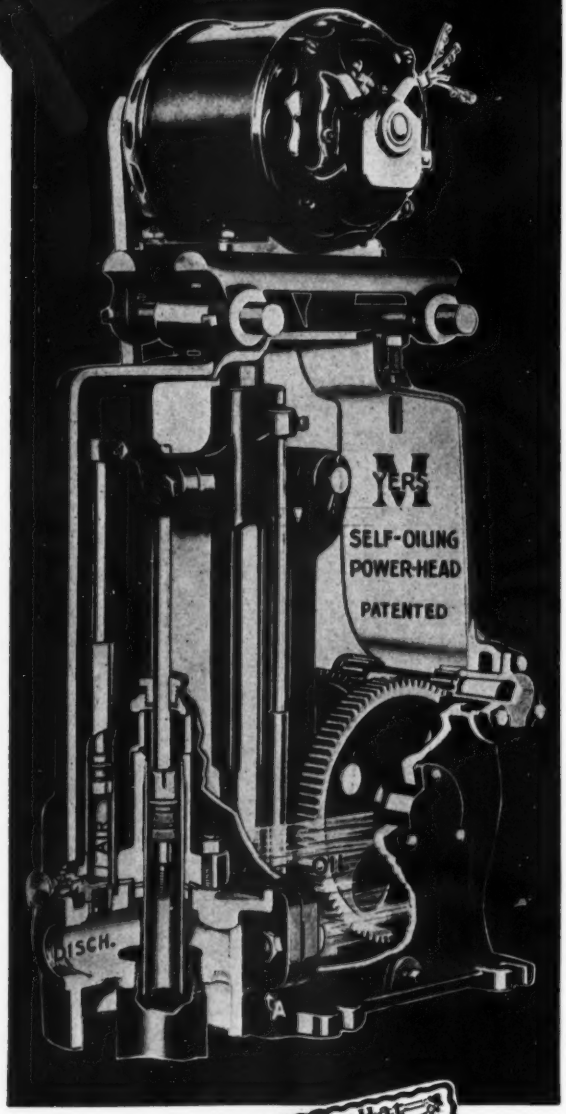
YOUR STOCKS OF SOME YALE LINES MAY BE LOW OR INCOMPLETE. GO OVER THEM WITH YOUR JOBBER, ORDER WHAT YOU NEED — AND GET READY FOR BIGGER SALES AND PROFITS FROM YALE IN 1938.

THE YALE & TOWNE MFG. CO.
STAMFORD, CONNECTICUT, U. S. A.

Hardware Age, published every other Thursday by Chilton Co. (Inc.). Publication office, Chestnut and 56th Sts., Philadelphia, Pa. Editorial and Executive offices, 239 West 39th St., New York, N. Y. Entered as second-class matter March 24, 1933, at the Post Office at Philadelphia under the Act of March 3, 1879. (Printed in U. S. A.) $1.00 per year. Single copies 15c each. Vol. 140. No. 13.

Built to "CARRY ON"





MYERS
SELF-OILING
DEEP WELL
POWER PUMPS

With the coming of January inventories are again in order. The old year is history. The story has been written in profits for some and in losses for others. Whatever the records show, one way or the other, the fact remains that the year just closed has witnessed marked improvements in Myers Self-Oiling Power Pumps and Water Systems that will continue to fortify their position of leadership and further enhance their sales and profit values for those who look forward to widening their business opportunities during 1938.

Myers Self-Oiling Power Pumps and Water Systems are designed for wide service. Shallow or deep well, engine or motor power. Few indeed are the demands which cannot be successfully and profitably met from the Myers line.

Start the New Year right by writing us for catalog and complete information.

THE F.E. MYERS & BRO. CO.
ASHLAND, OHIO.

PUMPS – WATER SYSTEMS – HAY TOOLS – DOOR HANGERS

HARDWARE AGE

Published Every Other Thursday

Publication Offices
Chestnut and 56th Sts.,
Philadelphia, Pa.

Editorial and Executive Offices
239 West 39th St.,
New York, N. Y.

Established 1855, succeeding and embodying "Hardware" of New York; "Stoves and Hardware Reporter," St. Louis; "The Western Hardware Journal," Omaha; "Iron Age Hardware," New York City; "The Hardware Reporter," St. Louis; "Hardware Salesman," Chicago; "Hardware Dealers Magazine," New York and "Good Hardware," New York.

Vol. 140 **No. 13**

SECTION I

GEORGE H. GRIFFITHS
President and General Manager

CHARLES J. HEALE
Editor and Vice-President

Associate Editors
KENNETH A. HEALE
GEORGE M. SANGSTER
RUDOLPH S. WILD

ALBERT J. MANGIN
"Who Makes It?" Editor

L. W. MOFFETT
Washington Representative

JOHN G. WILCOX
Circulation Manager

ADVERTISING REPRESENTATIVES

NEW YORK:
HAL BLODGETT, 239 W. 39th St.

BOSTON:
CHAUNCEY F. ENGLISH, 140 Federal St.

CLEVELAND:
WILL J. FEDDERS, 709 Union Bldg., 1836 Euclid Ave.

CHICAGO:
L. V. ROWLANDS, 802 Otis Bldg.

SAN FRANCISCO, CAL.:
R. J. BIRCH, 155 Sansome St.

LOS ANGELES, CAL.:
R. J. BIRCH, 846 So. Broadway

SUBSCRIPTION PRICE—*United States, its possessions: one year $1.00. Mexico, Central America, South America, Spain and its colonies: one year $1.00. Canada $2.00. Foreign countries not taking domestic rates one year $2.50. Single copies 15 cents each.*

EDITORIAL CONTENTS
DECEMBER 30, 1937

Just Among Ourselves, by Charles J. Heale 7

Taking the Mystery Out of Builders' Hardware, by Adon H. Brownell 10

Employer and Employee, by Joseph L. Ernst 14

1014 Sales in Four Days 17

There's Profit in the Cellar 20

Rural Electrification, by Walter F. Dunlap 23

Sherwin-Williams Honors H. D. Whittlesey 28

Bolts Simplification Schedule 30

Shannon Crandall Honored 32

Our Foreign Citizens, by Saunders Norvell 34

Hardware Age Window Displays 26

Hardware Facts, by Robert Pilgrim 33

What's New 40

News of the Trade 46

How's the Hardware Business? 54

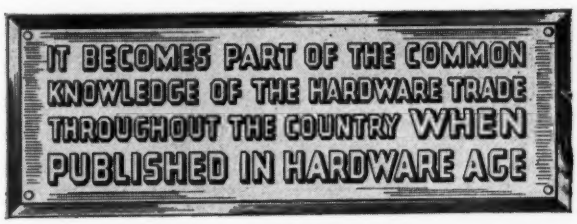
Hardware Age Fifty Year Club. 58

Coming Conventions and Events 66

"Who Makes It?" 68

Copyright 1937 by Chilton Company (Inc.)

ADVERTISING INDEX—PAGE 72



Publication Offices
Chestnut and 56th Sts.,
Philadelphia, Pa.

Owned and Published by CHILTON COMPANY (Incorporated)

Officers and Directors

C. A. MUSSELMAN, *President* FRITZ J. FRANK, *Executive Vice-President*

Vice-Presidents

FREDERIC C. STEVENS JOSEPH S. HILDRETH GEORGE H. GRIFFITHS EVERIT B. TERHUNE

WILLIAM A. BARBER, *Treasurer* JOHN BLAIR MOFFETT, *Secretary*

JOHN H. VAN DEVENTER JULIAN CHASE THOMAS L. KANE CHARLES S. BAUR G. CARROLL BUZBY P. M. FAHRENDORF

Editorial and Executive Offices
239 West 39th St.
New York, N. Y.

All is harmony in the shovel department when you standardize on Wood's, the world's fastest-selling shovels, spades and scoops! There's sweet music as the cash register chimes out its cheery tune. And never a sour note at inventory time.

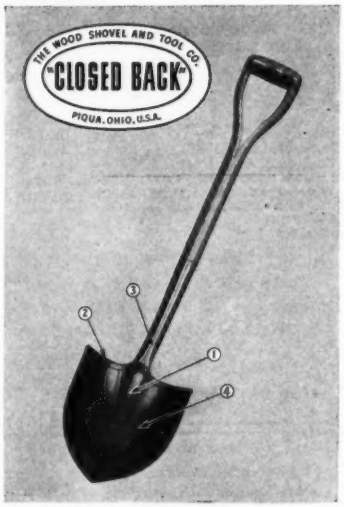
Here is the only line with the patented *Closed Back*. This means greater strength because of one-piece design; greater production per hour because there are no crevices to clog and clean; lower inventories because you stock a single modern type instead of a variety of strap weld, solid shank and hollow backs!

Users sing the praises too of the wide *Turned Shoulder* which, in addition to providing exceptional rigidity for the blade, also makes more comfortable the foot that rides it. They like the *Tapered Socket* which fits so easily in the hand, which affords better balance, extra springiness because of its hollow shank. And buyers who seek long life in equipment — listen to them chorus "Sold!" when you point out that the already tough steel blades and shanks of Big Fist, Wood and Stuart grades are Heat Treated . . . still tougher!

Sell Wood's, and you'll increase your shovel sales . . . while your cash register plays over and over again that pleasant Melody in D*! Call the nearest Wood's jobber today!
THE WOOD SHOVEL AND TOOL COMPANY, PIQUA, OHIO.

(*D—Dollars to you!)

WOOD'S SHOVELS • SPADES • AND SCOOPS •



1. CLOSED BACK—Smooth and non-clogging; strong one-piece design.
2. TURNED SHOULDER—Stiffens blade; wider, non-cutting foot rest.
3. TAPERED SOCKET—Comfortable handhold; greater strain resistance.
4. HEAT TREATED—High-grade steel becomes still harder, longer-wearing.

Just Among Ourselves

By CHARLES J. HEALE
Editor, Hardware Age

HAPPY NEW YEAR!—

To all hardware men and their families! May the new year be a happy one marked with good health, happiness and prosperity. This is the wish of the members of the HARDWARE AGE staff and we pledge our collective best efforts toward making 1938 a bigger and better hardware year. We all know that there are some clouds on the horizon. But we also know that in good times or bad times there are certain business men who always go forward and apply themselves to the best of their respective talents and opportunities. It will be the same in 1938. Hardware men who make their stores more attractive, who display their goods better and make a greater effort to attract customers will again obtain a proportionate share of existing business. It may, for the early part of the year, require greater effort and more intelligent selling and advertising to even approach the records of 1937. I think it will and I sincerely believe that the time is opportune for a New Year's resolution that will aid each member of the trade in reaching the goal of better business.

JOHN RUSKIN:—

A splendid thought for hardware men to carry in their minds as part of their thinking for the New Year is the famous quotation from John Ruskin's writing "There is hardly anything in the world that some man cannot make a little worse and sell a little cheaper; and the people who consider price alone are this man's lawful prey."

REFRESHING:—

Obviously a form of graft if not an implied bribe, the practice of giving Christmas presents to customers' employees is a costly and unwarranted practice. The total cost of such holiday contributions is finally a factor in the cost of manufacturing and distribution and, though completely hidden, is finally charged somewhere in the customers' invoices. Not to be confused with casual, informal entertainment of customers, the gift handouts are a vicious and even competitive problem, with suppliers seeking to outdo each other in the nature and value of the presents instead of applying the energy, thinking and value to improving their goods and services. Apropos to this comment is a copy of a letter sent to all suppliers by E. J. Lybert, puchasing agent for the Burgess Battery Co., Freeport, Ill., which reads: "Some of our suppliers, undoubtedly in a spirit of appreciation, have in past years sent holiday gifts to our employees. We believe it is desirable that this practice be avoided, for our mutual objective as supplier and customer is attained when merchandise of quality, properly priced, is delivered as ordered and the invoice provided for within terms. Your cooperation in refraining from sending personal gifts to any member of our organization will be appreciated."

FIFTY YEARS:—

When a business executive has served an industry successfully and usefully for half a century a milestone is reached that is entitled some special attention. It was with that thought in mind that the HARDWARE AGE Fifty Year Club was founded. Too often such anniversaries have gone unnoticed by friends and associates. To club membership this year have come two outstanding gentlemen in our industry whose friends and associates appropriately marked their respective fifty-year business birthdays. Elsewhere in this issue are told the stories of special dinners and celebrations tendered Shannon Crandall and Henry D. Whittlesey. Mr. Crandall is president of the California Hardware Co., Los Angeles, Calif., and of the National Wholesale Hardware Association. Mr. Whittlesey is first vice-president of The Sherwin-Williams Co., Cleveland, Ohio. Each man started his highly successful career in modest fashion and each in his respective calling went up the ladder of success through various positions and

No. 5 for Boys and Girls

No. 6 For Girls

No. 4 For Children

SALES SHOW WHICH WAY TRADE WINDS BLOW

In a recent check-up of 94 Hardware Jobbers Catalogs on Roller Skates, the Union Hardware Company Roller Skates were sold by more than 2/3rds of these jobbers. Only 1/3rd sold the brand that rated next highest.

Union Hardware Roller Skates were sold *exclusively* by nearly 1/3rd—the next *highest* brand by about 7%. When any brand of Sporting Goods secures such a grip on trade as this check-up reveals, it shows the *demand* for that *particular* product.

UNION HARDWARE

BALL-BEARING EXTENSION ROLLER SKATES

have been known and sold for over half-a-century. They have proved consistently dependable in both quality and performance. The complete line of Union Hardware Roller Skates for 1938 comprises many attractive patterns for Men, Women, Boys and Girls of all ages, and at popular prices.

Now is the time to "Check-up" yourself—look over your stock of Roller Skates and order accordingly for the year ahead. We wish our Jobbers and Dealers a profitable and "Happy New Year!"

Send for Latest Catalog No. 15. It illustrates and describes the complete line.

Your Jobber Will Supply You

UNION
HARDWARE COMPANY
REG. U.S. PAT. OFF. ESTABLISHED 1854
TORRINGTON, CONN.
NEW YORK OFFICE 151 CHAMBERS STREET

built for himself and his company a widespread renown. In the simple stories of their progress it is clear that Messrs. Crandall and Whittlesey contributed richly and generously to the training of other men who were proud and happy to do them honor on their fifty-year anniversaries. There is ample inspiration in the lives of such men for all who would be useful citizens and business men. Their careers justify our traditional American belief that those with the will, the depth, the courage and the ability will continue to have ample opportunity to make progress. It is also reassuring to record that the friends and associates of these two men were sensitive to the importance of a fiftieth business anniversary and sentimental enough in a busy world to gather together with their friends to pay them the homage so richly deserved.

MAJOR ITEMS:—

Unavoidably the retail hardware store stock includes a wide variety of items selling at popular prices—10 cents, 15 cents and 25 cents to one dollar. It is such items that help create and maintain much-needed store traffic. If such goods were bought cost free and the retail price were clear margin there would still be a lack of substantial profits at the end of even a boom year. Such lines are part of the service a hardware store renders a community. To offset these small net amounts of actual cash in such sales, hardware stores urgently require an increased number of major item sales. Such lines as electric refrigerators, vacuum cleaners, washing machines, radios, oil heaters, stoves, ranges, etc., selling anywhere from $30 to several hundred dollars serve to bring up the sales volume and build up larger cash margins. Generally speaking, the majority of hardware stores lack sufficient aggregate sales volume. The proper effort devoted to the actual selling of major appliances will tend to correct this weakness and as all of these major items are essentials to today's living standards there will be ample sales made by those who go out after this business. Foremost among hardware resolutions for 1938 should be the determination to develop more major item business, sales that individually represent sizeable sales checks and justify the extra effort required.

SELLING:—

If 1938, as freely predicted, is to be a buyer's market year with less aggregate business all around there will naturally be keener competition for the business. In our complex system of today all men seem to be in competition with each other. Money spent for cars does not buy hardware but it does sift through into wages that buy hardware at a later date. Aggressive selling for good values will always bring results. Careless or indifferent selling will always curtail results. The better business in 1938 will be earned by courageous selling. Throughout all business there are many men with selling courage who will try more and not less and who will painstakingly watch the little details of good service cheerfully rendered. To such there will come relatively satisfactory results in the New Year.

SPECIAL SESSION:-

The much-heralded special session of Congress has come and gone. The members of both Houses are headed home for the Christmas holidays. Not a single major legislative effort was completed or even "practically decided." In return for approximately $225,000 in carfare expense borne by the taxpayers, the net score of accomplishment during this special session is as follows:

1. Appropriation of $225,000 for mileage expenses of Senators and Representatives between Washington and their homes.

2. Appropriation of $12,000 for pay of House and Senate pages.

3. Authorization for the loan of certain portraits housed in the Capitol to the Corcoran Art Gallery in connection with the constitutional sesqui-centennial celebration.

4. Amendment of the Federal Credit Union Act.

5. Extension of the time for beginning construction of a bridge across the Tennessee River in Alabama.

"TOOTHACHE":—

Representative Snell of New York, House Republican leader, is quoted as stating "after mature consideration" that the three highlights of the special session were:

1. President Roosevelt's fishing trip off the Florida coast.

2. Vice-President Garner's hunting trip in Pennsylvania.

3. A potato-eating contest to judge the comparative merits of Idaho and Maine spuds.

Mr. Snell is credited also with further elaboration on these highlights: "In the first instance, the fishing trip resulted in a toothache. In the second, there was a dispute whether the tame deer the Vice-President is alleged to have shot was tied to a tree or not. In the third, the Idaho and Maine potato-eating contest ended in a draw. The final results of the whole special session will be a toothache for the country." He should have said a "belly-ache".

COMFORT:—

Although it may all be nice, clean fun, the net results of the special sessions seem worth something less than the $225,000 for carfare paid to the members of Congress. There is comfort, however, in the realization that the lack of worth-while tangible results represents a new spirit in Congress — an unwillingness to jump at the crack of a whip to railroad through the so-called "must legislation," without regard to the merits and economics involved. We may well take new hope if the behavior of the special session indicates the trend for the next regular session to open in January. An independent-minded Congress will be a much-needed ray of sunshine that should help greatly to alleviate the present prevalent feeling of uncertainty among business men. A Congress doing some of its own thinking in the best interest of the country at large, tending toward a "hands-off" policy in its attitude on business regulation should help make 1938 a happy year.

TAKING THE MYSTERY OUT

By ADON H. BROWNELL

Chapter 17—Intermediate Course

Mortise Bit Key Locks and Latches

HAVING completed our study of butts and hinges for residential work, we will now take up the study of locks.

First, I want you to acquaint yourselves with the three standard types of lock construction used on interior door locks. For your easy reference I have called them types A, B and C.

CHART SHOWING PRINCIPAL PARTS OF LOCKS

- **Front or Face**
  - Flat
  - Beveled
  - Adjustable
  - Rabbeted for Pairs of Doors
  - Rounded for Double Acting Doors
  - Selvedge
- **Strikes**
  - Rim
  - Rim—Reverse Bevel
  - Mortise
  - Mortise Box
  - Mortise Protected
- **Bolts**
  - Latch—(by Knob)
  - Dead by Key on Thumb Knob
  - Slide or Thumb Bolt
  - Auxiliary or Guard
- **Springs**
  - Flat or Stiff
  - Soft
  - Layer Easy
  - Compression Easy
- **Hubs**
  - Solid 5/16-3/8
  - Swivel 6 mm.-8 mm.
- **Keys**
  - Bit Key
    - Cast Iron
      - Tinned
      - Nickeled
    - Forged Steel
  - Flat Keys
  - Folding
  - Cylinder
- **Cylinders**
  - Rim
  - Mortise
- **Bracket** — Distance Front to Center of Knob Hole
- **Spacing** — Distance Center Knob Hole to Center Key Hole
- **Reverse Bevel**
  - Rim
  - Mortise
- **Knob Stop**
  - Rim
  - Mortise
- **Tumblers** — Mortise
  - 1 =
  - 3 =

With slight variations, most of the manufacturers use similar construction in these types of locks. Type A, the cheapest, is used only on modest commercial work. Type B is the medium-priced, generally called, easy spring type of lock. It is popularly used as a middle grade lock where something of a better grade is desired but where one cannot afford to buy the best.

Type C, the double-compression spring lock comes only in the higher grades of locks. This type of construction has for years been generally accepted as outstanding in lock construction. The best way I know for you to learn why these types vary in price and general satisfaction, is to take one of each and try them for yourself. Note the improved latch and knob action as you step up the grades and also note the better workmanship. As a youngster you probably liked to take a watch apart to see what made it go. Do the same with these three types of locks. Take each one all apart and then put it together again. Let me warn you though to have another like it that hasn't been taken apart, so that you will have a pattern to show how it goes together just in case you get stuck. Most of these locks are reversible. That is, they can be used on a door swinging either to the right or to the left by reversing the latch bolt. Learn how to reverse the lock—it will be good practice.

Although, as I have stated, most of these locks are reversible, they are not always so. This being the case, the present would perhaps be as good a time as any to learn

OF BUILDERS' HARDWARE

about the "hands of doors." There are four "hands" or swings on locks and it has been confusing to many beginners who have attempted to distinguish them. They are as follows: right hand, left hand, right hand reverse bevel and left hand reverse bevel. These swings are illustrated at the bottom of this page.

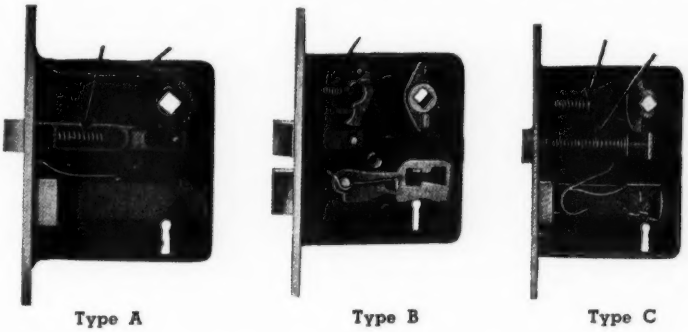
You will note that the hand of a door is always determined from the outside. "Outside" may be the outside of the building, the hall side of a door leading to a bedroom, the room side of a door from a closet. In the case of a communicating door between rooms the outside is the side from which the butts or hinges are not visible when the door is closed.

If the butts are not visible when you are standing outside and the door swings away from you to the right, it is a right hand door—if away from you to the left, it is a left hand door.

If, when you are standing outside, the butts are visible and the door swings toward you to the right, it is a right hand reverse bevel door. If it swings toward you to the left, it is a left hand reverse bevel door. Study the sketches until you have mastered this.

There are many terms you should learn in lock construction. The "front," the "case," the "strike," the "latch." the "bolt," the "tumblers," and the "hub." These terms require no explanation as the names themselves signify what they are.

The types of locks we are studying are made with from one to five tumblers, each additional tumbler giving more protection from easy picking of the locks. However, locks having one or three tumblers are popular and in general use.



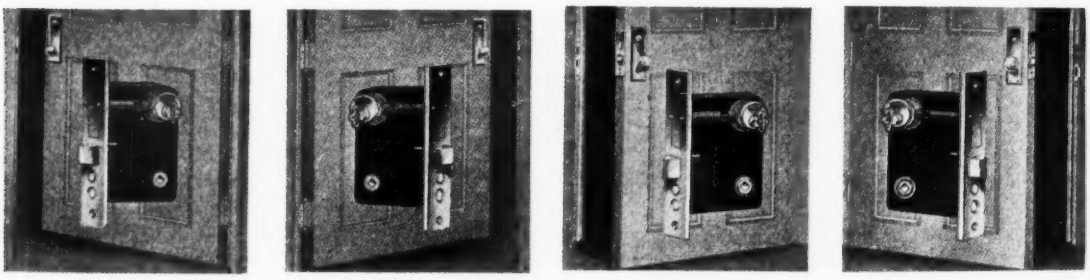
Type A Type B Type C

Then come some other terms which are not so easily understood and it is tremendously important as you learn builders' hardware that you know what they are. The most important word to know and understand is the "back set of the lock."

"Back set" is the distance from the front to the center of the knob or keyhole. It is important that you understand this in order that you may be able to order the proper back set lock. This is one of the finer details that distinguishes a good builders' hardware man. For example—if you had a French door with a stile of 3 in. you should order a lock having a 1½ in. back set which would center your handle trim on the center of the door stile. Watch the architect's detail for the width of the stile or rail of the door.

It would also be well to discuss another mark of a good builders' hardware man—the length of the lip on the strike of the lock. Have you ever torn your clothes on a lock strike where the lip of the strike extended too far beyond the casing of the door? Or have you ever noticed a door casing that had been all chewed up by the latch of the lock because the lip of the strike was not long enough?

The lip of the strike should reach ⅛ in. beyond the casing. Watch this carefully on fine resi-



Right hand Left hand Right hand reverse bevel Left hand reverse bevel

HARDWARE AGE Comparative List

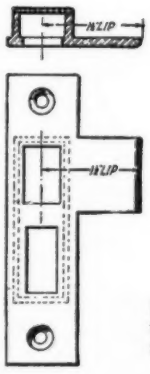
Published in the December 30, 1937 issue

Lock Number	Description	Construction	Case Width	Backset	Face	Tumbler	No. Bolts	Barrows Lock Co.	Champion Hardware Co.	Chantrell Hdwe. & Tool	J. Chesler & Sons Co.
A	Mortise Steel—Bit Key	Type A	3½"	2½"	Flat	1	1	P610	S290	S290	S
B	Mortise Brass—Bit Key	Type A	3½"	2½"	Flat	1	1	810	A290	A290	CB
C	Mortise Brass—Bit Key	Type B	3½"	2½"	Flat	1	1	831	A350	A350	
D	Mortise Brass—Bit Key	Type B	3½"	2½"	Flat	3	1	833	A350¾	A350¾	
E	Mortise Brass—Bit Key	Type C	3½"	2⅝"	Flat	3	1	853	A318¾	A318¾	
F	Mortise Brass—Bit Key	Type C	4¼"	2¾"	Flat	3	1	873	A418¾	A418¾	
G	Mortise Brass—Bit Key	Type C	5"	2¾"	Flat	3	1	973	A453¾	A453¾	
H	Mortise Brass—Bit Key	Type Spec.	4"	1½"	Flat	3	1	536	A352¾	A352¾	
I	Mortise Brass—Bit Key	Type Spec.	4"	1½"	Rabt.	3	1	536R	RA352¾	RA352¾	
J	Mortise Brass—Thumb Turn	Type Spec.	4"	1½"	Flat		1	535	A356	A356	
K	Mortise Brass—Thumb Turn	Type Spec.	4"	1½"	Rabt.		1	535R	RA356	RA356	
L	Mortise Brass—Thumb Turn	Type B	3½"	2½"	Flat		1	825	A353	A353	SB
M	Mortise Brass—Thumb Turn	Type B	3½"	2½"	Flat		2	975	A255	A255	
N	Mortise Brass—Thumb Turn	Type C	4"	2¾"	Flat		1	875	A413	A413	
O	Mortise Brass—Thumb Turn	Type C	4"	2¾"	Flat		2	980	A357	A357	
P	Mortise Brass—Bit Key	Dead Bolt	2¼"	2¾"	Flat	3	1	1163			
Q	Mortise Brass—Latch only	Type A	1½"	2½"	Flat						L
R	Mortise Brass—Latch only	Type B	1⅝"	2¾"	Flat			1176			
S	Mortise Brass—Latch only	Type C	2¼"	2¾"	Flat			1177	A240	A240	

Note—General Description—Sizes vary with manufacturers.

dential work as it will help you gain the respect of your customers if you are able to take care of this detail. On commercial work of course, one does not generally pay so much attention to this. On really fine homes a box strike similar to the one shown in the accompanying illustration is used which adds considerable refinement to the job.

The "spacing" of the lock is another term you should understand. This means the distance from the center of the knob hub to the center of the keyhole.



Box strike of the type used in fine residential work.

The accompanying list of more or less frequently used terms regarding locks should be studied, particularly the different types of fronts as detailed in this chapter.

Continuing our comparative lists of finishes, products, etc., you will find in this chapter a list of most of the more popular locks used in residential work. Cylinder and front door locks are not included and these will be in our next chapter.

In this chart of comparisons, I

for Mortise Bit Key Locks and Latches

Note—While every care has been taken, we assume no responsibility for correctness of these comparisons furnished by the manufacturer.

Copyrighted 1937 by Hardware Age
239 West 39th St., New York City

Clinton Lock Co.	P. & F. Corbin	Dudley Lock Co.	Earle Hdwe. & Mfg. Co.	Lockwood Hardware Mfg. Co.	Norwalk Lock Co.	Penn Hardware Co.	Reading Hardware Co.	Russell & Erwin Mfg. Co.	Sager Lock Co.	Sargent & Co.	Skillman Hdwe. Mfg. Co.	Yale & Towne Mfg. Co.
4081	13271	413		3109	9420	2327	858¾	01001	270	5161	5003	808
4080	1284	412	400	3126	8421	2355	1159	0389	260	5164	5012	802
4070	785		401	3610	8414	2368	01256	0370	300	5234	6012	1821
4070¾	785¾		403	3611	8424	2369	01257	0370¾	300¾	5249		1820
4020¾	1364	4020		3601	8471	2398	1257	380¾	320¾	5269	5230	1620
4030¾	1365	448		4656	8531	2478	1222	382¾	370¾	5639	5030	1500
1260¾S	233			5534	8549	3558M	1188	0022¾	355¾	6215		1449
4000¾	01365	414A		4644	8273	1185	001222	G381¾		5069	480	1509G
R4000¾	02365	R414A		4632	R8273	R1185	01212	G391¾		5069R		1509½GA
550	0174	416A		4625	8272¼	1196	001122	G231		4660		1539G
R550	0174½	R416A		4626	R8272¼	R1199	002222	G291		4660R		1539½G
500	159		407	3130	8340	3169	01179	233	480	4663½	549¼	1819
520	159¼		408½	5539	8575	3359	1181	233½		4671	5231	1824
510	159½	414T	408	5549 X Key	6570	3189	1282	236	450	4665	5233	1535
530	159¾	414T		5538	6587	3369	1182	236½	452	4675	5031	1525
960¾	132	420		2165	8184	3958	1092	078¾		4949	5082	275
3000	045			1034	8049		1038	042		4624	59	1023
3030	049	440		1048	8025½	1667		026	130	4643		1016
3010	090			1084	8065		01025¾	025	140	4645	60	1000

Note—Where no mfg. number is given, they do not make that particular lock.

have listed the numbers that I have stocked in my own stocks. I realize that from the literally hundreds of locks manufactured many good men would pick other locks than I have chosen, so again I say consult your own source of supply and be guided by its representative's good judgment.

The first six locks listed are standard type, bit key locks operated by knobs and locked by key from both sides. The seventh lock used principally on bedroom doors from halls and occasionally on bathroom doors is operated by knobs both sides, locked by a key on the outside and by thumb bolt on the inside. The next four locks are narrow, back set locks for French doors—flat face locked by key, rabbeted face locked by key, flat face operated by thumb turn and rabbeted face locked by thumb turn.

Following the French door locks are the bath and communicating door locks operated by knobs on both sides. The bath locks by means of a thumb turn on one side, the communicating locks by thumb turns on both sides.

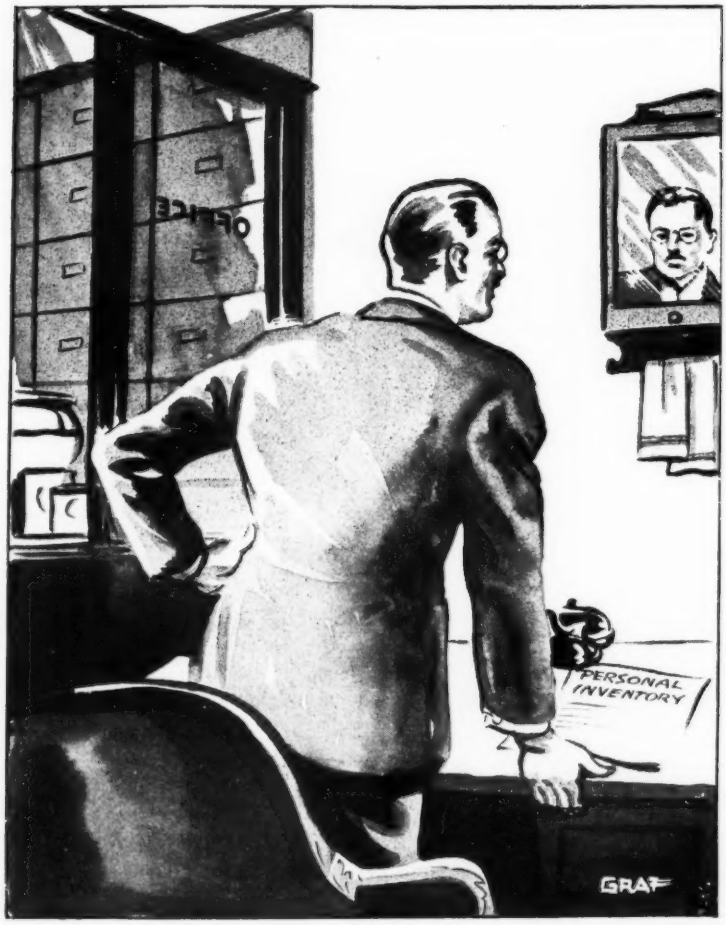
The list closes with a bit key dead lock with no latching feature and three latches with no locking feature.

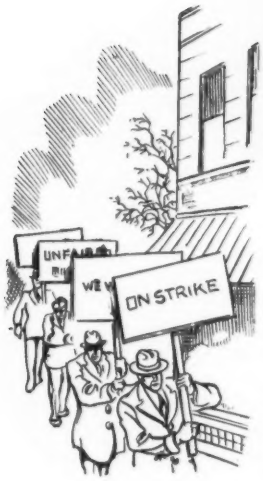
TURN TO PAGE 57!

On page 57 of this issue is an important addition to the Comparative Chart of Builders' Hardware Manufacturers' Finishes, which appeared in the Nov. 18, 1937, issue.

Employer and

The first of two articles dealing with today's most vital business problem ..... the individual and mutual obligations between employer and employee





This article deals with the employer — The concluding instalment, by the same author, deals with the employee and will appear in the next issue

IT has generally been the accepted fact when groups of hardware merchants gather that the average clerk has many shortcomings, but how many employers ever take stock of themselves or admit, even in the secrecy of their own consciences, that *they* are not always above reproach?

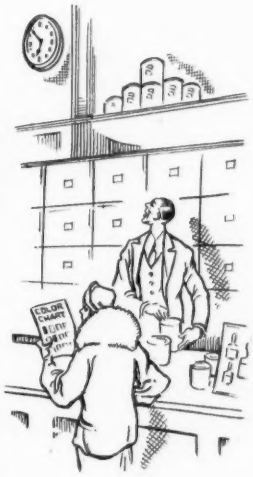
Many a man who has climbed the ladder from employee to employer quickly forgets his origin and is often more critical and intolerantly hard-boiled than the man born with a silver spoon in his mouth. Others who in some manner have reached the top having made fine records as bookkeepers, credit men or salesmen, in the transition have developed into mighty poor executives.

Unless a hardware establishment is a one man outfit, the head of the organization must surround himself with the assistants necessary to carry on the business as it exists and provide the additional help for its hoped for expansion. The selection of personnel to staff a hardware store is one of the most responsible and important duties the head of the business must face. His success will rise or fall largely on the type of associates he selects for various jobs.

Employee

By JOSEPH L. ERNST

Purchasing Agent,
Board of Education
Rochester, N. Y.



Be the business large or small, from errand boy up, the organization must be built with the idea of service to the community and good will toward the patron. Most employees of a retail hardware store come in contact with the customer. I have known errand boys who, by reason of their courteous manners, have actually produced many dollars' worth of business for their firms, and I have known other youngsters, who by their officiousness or their fresh manners, have actually turned trade away from the store. Even the wrong voice at the end of the telephone can do untold harm and discourage prospective customers from giving that store their trade.

If your store requires a force of from two to ten people to adequately man it, make this small organization a diversified group so that when one or more are absent through illness, vacation or "out to lunch" the remainder can carry on in a manner satisfactory to the customers.

In the outlying districts of cities or in towns the hardware dealer would do well to select men or women for his assistants who have the faculty of making friends—the type, who in a short time will know your customers by name and become familiar with their peculiarities and needs. The hardware business has changed so materially in the last two decades that it has long since ceased to be exclusively a man's store. For this reason girls and young women are better fitted for some types of work and for the selling of some classes of merchandise than men.

The really good salesman in the 1937 style hardware store must have a general knowledge of many things and of many trades to be able to answer the multitude of customers' questions. He must be in position to intelligently advise on matters of roofing, tinsmithing, carpentry and plumbing, and must speak the language of the customer with a hobby for making things of metal or wood.

Select for your employees men and women who have initiative. From high school graduates, choose the one who has been active

in school affairs and has also had a reasonably good scholastic record. School boys and girls who have taken vocational or technical courses should prove to be good salespeople if they have any inclination in that direction.

Unless you have selected an experienced and older person for the vacancy in your sales force, your duty to the hardware neophyte has just begun, for if he or she is to be the valuable assistant you expect, a certain amount of training in your way of doing business must be given, for do not forget the employee represents *you*.

Encourage Employees

Encourage the new salesman or saleswoman to study the merchandise on your shelves, to know how it is made and what it will do. Have him or her consult manufacturers' catalogs and read circulars and trade papers. The last named give a cross section of the industry and widen the knowledge of the employee as to the problems of other merchants. It might be pertinent here to urge all employers to read trade papers and call attention of their assistants to noteworthy articles and discuss them with their groups. Insist that your employees at least glance through HARDWARE AGE as it comes to them twice a month and read articles that they will find instructive. Advise them to ask questions of jobbers' and manufacturers' representatives, and whenever possible have them attend local and state hardware meetings and exhibits. Coach the new employee in your policies and in your idea of service to customers. Make them feel free to come to you with questions, and, above all, to report to you all complaints of customers so they may, if justified, be rectified.

Give the newcomer, as well as the older hand, an opportunity to express his personality in his part of the business so long as it conforms to your policies. Request comments and suggestions for the benefit of the business. If his ideas are not, in your judgment, practical, explain why, and commend him for his interest. If he makes a good sale, pat him on the back. Don't be afraid of complimenting an employee for fear he will ask for a raise next day. I know of one hardware man, who, instead of complimenting a salesman for new and increased business, said, "Don't you think John Smith & Co. likes to do business with us?" when, as a matter of fact, this customer hardly knew of the store's existence. Such treatment hardly makes for enthusiastic cooperation on the part of an employee.

Do not think just because you are the head of a business that you know it all. Give the other fellow some credit for an occasional profit-making idea.

The species of employer who feels he is demeaning himself by talking to his employees save when it is necessary to "bawl them out" may be rare but unfortunately he does exist. The "talk things over" type of boss in the long run gets more cooperation from his staff than the "driver."

Somewhere in the scale of created things, between the jellyfish and the snake, comes the bee. But while the bee is a very busy creature he thrives on honey rather than on vinegar. Some employers would do well to give this fact some thought. You do not need to be a Casper Milquetoast to be human.

If you find you have hired a dumbell, fire him, but don't make a dumbbell out of a willing worker because you won't see the difference. Do not be afraid to say "Good morning" as if you meant it. It doesn't hurt a bit even to deign to ask your assistant if he or she had a pleasant weekend holiday.

No Public Reprimands

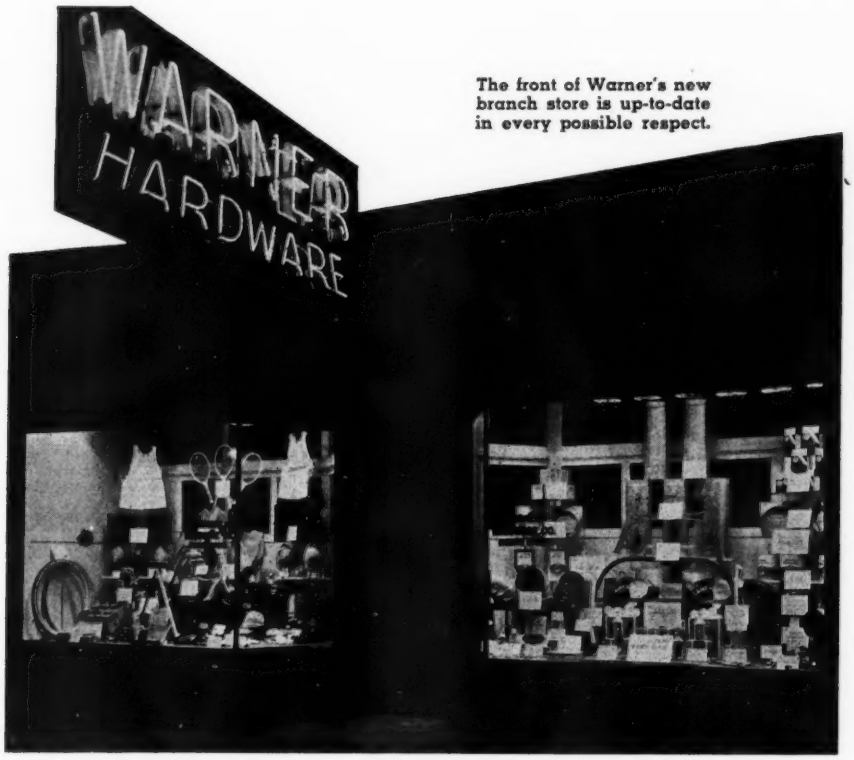
If a member of your organization is guilty of an infraction of some rule do not reprimand him before a customer or before other clerks. Nothing is more disconcerting to a customer than to have the proprietor come up to a clerk, ask some question, and, if the answer is not to his satisfaction, proceed to "bawl him out" to the queen's taste. The customer resents the intrusion, his sympathy goes to the underdog and his friendliness for the store is lessened. In addition the employer has weakened the self respect of the clerk. It should not be necessary to state that if you have something of a critical nature to discuss with an employee, or a criticism to level at him, do so in the privacy of your office.

Have Sales Meetings

No matter how small your organization call them together after hours, where undisturbed, you may together map plans for the betterment of the business. Allow free discussion and encourage the others to talk. Make them feel that they are important cogs in the machine. It is a good idea now and then to take the humble attitude and realize that if your business is prospering your associates are entitled to some credit for the good will of your store. Look around you at other lines of business and you will realize that you show a preference for a certain cigar store, barber shop, grocery or even a certain "five and dime" because of the courtesy or attention of some particular clerk. There is many a business that is profitable not because of the proprietor but in spite of him. The employer with the liability type of disposition does well to stay in the background and admit his limitations. He owes a heavy obligation to those who carry his banner in the battle of business.

If you employ outside salesmen to call on certain trade give the salesmen credit for calls made, and also credit for the good will that he is building for you even if the results are not immediately apparent. Unless you are running a racket where a sale must be made on the first call or never, consider that it takes time for any outside salesman to produce the business you may expect. I know of the representative of a lock concern who called on a jobber for 16 years before he ever received much of an order, but when the jobber changed his line, that salesman obtained the business from that time on. He was nicknamed "16 to 1." While this is an extreme case it illustrates the point that persist-

(Continued on page 53)



The front of Warner's new branch store is up-to-date in every possible respect.

1014 Sales in Four Days!

That's what happened when the 62-year old Warner Hardware Co. of Minneapolis opened its ultra-modern branch store

JACK E. KELLY

WHEN the Warner Hardware Co., 13 South Sixth Street, Minneapolis, Minn., opened its new branch store at 905 West Broadway in September there were 1014 sales recorded in the new establishment during its first four days of operation.

This record was not an accident. The main store was established in 1875 and has built up an exceptional record in every respect. This in itself served to interest people in the new establishment, but there were other factors which counted. The new store is modern in every respect. An impressive advertising campaign announcing its opening served to bring people through its doors in crowds. And everybody who visited the store talked about it whether they purchased or not. But it was the fine merchandise, effectively displayed in attractive surroundings which was, in the final analysis, responsible for the continuous ringing of the cash register.

"Our Broadway store," says Martin Olsen, advertising manager of the company, "although on a business street is located in what might be termed a typical neighborhood section. Most of the residences in the vicinity are of the one-family type. The branch cannot, of course, carry all the merchandise handled by the main store, but, strange to say, the fact that the branch is primarily a neighborhood store has not resulted in its carrying merchandise

Left side of the new store showing paint panels described in this article. This department progresses logically down the side of the wall and the modernistic signs tell customers where they can find the articles they seek.

not stocked in the main store. As far as we can determine, the opening of the branch has not taken business away from the downtown store. We firmly believe that the branch has brought back charge account customers who had drifted away on account of bad traffic conditions in the loop district where the main store is located."

The new branch store is equipped with open and roomy display units which permit the merchandise to be shown to the best possible advantage. These fixtures, which were suggested and installed by the Minnesota Retail Hardware Association, are of wood and have been arranged in such a manner that customers may circulate freely around all sides of the tables and inspect the various items on display without difficulty.

Many display innovations have been employed in the new establishment. The paint panels are outstanding examples. These panels, which swing from a wall display unit, are the first of their kind to be seen in Minneapolis and show customers exactly how different types of paint finishes will look on both exterior and interior walls. Another unusual feature is an oil-burning heater which has been installed for actual demonstrations.

The store's interior presents a decidedly pleasing appearance. The color scheme is taupe and jade green, the taupe shade having been obtained from a special combination of cream and ivory. Raised, modernistic signs on top of the wall cases indicate the various departments of the store. The lighting arrangements are exceptional and the 80 by 30-foot display room is illuminated by

Another view of the interior — the right side of the store. Display tables are octagonal in shape, each consisting of two five-sided units which can be joined together or used separately as occasion demands.

means of 14 ceiling units each of which uses a 300-watt lamp.

The exterior of the store presents an appearance which is fully as attractive as the interior. The glass front is covered with what is known as "industrial black." The two display windows are well lighted, one having six 200-watt lamps while the other has seven lamps of the same wattage. A large neon sign bearing the words "Warner Hardware" extends from the store front across the sidewalk and serves to attract prospective customers.

Steady Advertisers

Warner's main store at 13 South Sixth Street has been a consistent user of daily newspapers and weekly "shopping" papers for many years. The opening of the new branch at 905 West Broadway was well advertised in Minneapolis papers and these announcement ads were largely responsible for the 300 sales made on the opening day, Wednesday, Sept. 1. Records for Thursday, Friday and Saturday of the same week were 129, 180 and 405 sales respectively. Since the branch was opened both it and the main store have been publicized with at least three different advertisements, each week, during some weeks an even larger number of ads being used. The first three or four special opening day advertisements for the branch store were followed by joint ads for both stores. Some of the merchandise advertised in the newspapers and "shoppers'" papers is only carried by the main store and such merchandise was indicated by stars in the copy. Each month a budget is set up for an advertising appropriation for the next month. This is based on a portion of the sales for the same month of the previous year.

When announcing its new store, the company featured several black background ads with white lettering which called attention to the new branch and invited people to "visit this completely modern hardware store." One large ad showed some specially priced items together with photos and brief sketches of the three men in charge of the branch. Summing up the features and services of the new branch it read, in part:

"Warner Hardware Co. has established a completely modern hardware store in the heart of North Minneapolis. Our slogan 'Equal or Greater Values at Warner's' will also be true at the new store where the same large selection of nationally known merchandise will be featured. You can enjoy the same services that you have at our Main store at 13 South Sixth Street (near Hennepin). These include free delivery, charge account, time payment, 'phone order and repair shop services."

While giving proper display and attention to housewares, paint, tools, sporting goods, etc., the store does not neglect large units of sale. Electric refrigerators, oil heaters, coal heaters, radios are displayed and sold in both the stores. Terms at both stores are the same, up to eighteen months being allowed on a deferred payment purchase. Although terms are more or less uniform for all customers, the credit of the customer and the cost of the item sold are factors in determining terms for individual sales.

Ever since radio broadcasting began on a large scale, the company has had its own radio service man, who is now located at the branch store. When there is a business rush the service man helps on the sales floor. His services to charge account customers are billed on their regular monthly statements.

Radio sets are sold, subject to the regular factory guarantees, and as on other major units of sale, trade-in allowances are sometimes granted. In instances where the company feels that a customer could do better for himself by advertising a used radio, refrigerator or other large unit in newspaper want ads he is urged to do so. All trade-ins taken in by either store are kept in the basement of the branch store until sold or otherwise disposed of.

Warner Hardware Co. was established in 1875 and now employs a total of 121 men and women in its two stores. The branch store is managed by Jack Kelly, former manager of the cutlery department of the main establishment. He has also had experience in the company's tool, paint and city desk departments. Jack Gorius devoted 10 years of his business career to the hardware business before taking charge of the branch store paint department. The third member of the branch store sales force is Dick Dressler who was for some years with the hardware store formerly operated by his father on the same block as Warner's branch. All are young men with young ideas.

Purchases for both stores are made from the main store, although the branch store is operated independently. The branch has its own 'phone, but is also connected with the main store by private wire. The same charge account and twice-a-day delivery service is given by both stores.

Ten Commandments of Business

1. Don't wait for the other fellow to come to you; go to him.

2. In competition with others, always give them the credit of being a little smarter than you are. Then work like the deuce to prove that they aren't.

3. If you have no money and little credit, capitalize your personality. Sometimes it pays to have nerve.

4. Never admit to anybody—and least of all to yourself—that you are licked.

5. Keep your business troubles to yourself. Nobody likes a calamity howler; besides, he finds scant favor with the bankers.

6. Don't be afraid of dreaming too big dreams. It won't hurt you to figure on owning a railroad, even if you have to compromise on a flivver.

7. Make friends; but remember that the best of friends will wear out if you use them too frequently.

8. Be square even to the point of finickiness, and you will have mighty little occasion to complain of a crooked world.

9. Take advice but do your own deciding.

10. Don't toady. The world respects the man who stands upon his hind legs and looks it in the eye.—*Forbes.*

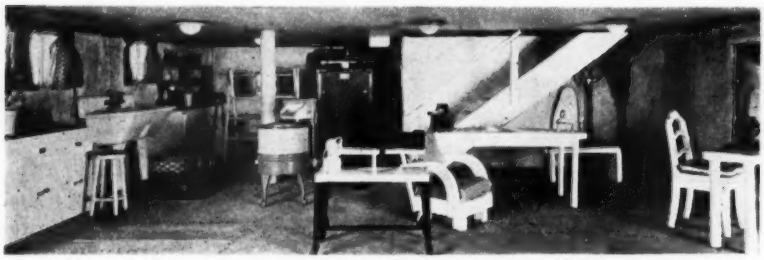
This stuffy, old-fashioned cellar was changed into a utility room any woman would be proud to own.

There's Profit in the Cellar

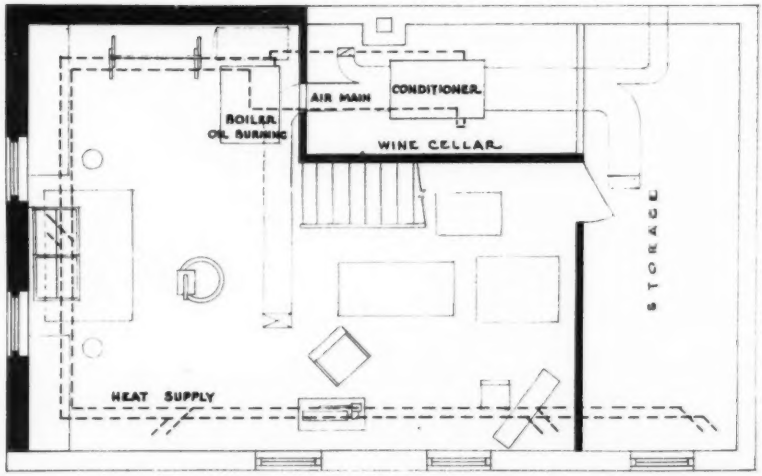
If You "Sell" Basement Remodeling Projects

THERE is a big market with real profits for you in the old cellars of your community. An unusually wide variety of merchandise is needed in the creation of the popular modern-day recreation or utility basement. Whether homes in your town date from 1898, 1910 or even 1930, many of them provide a good market for basement remodeling projects—projects which will require merchandise which you can sell profitably.

You can sell the modern basement idea to both men and women. Men are becoming more interested in utilizing the cellar or "basement" for recreation, hobby or utility rooms. Women never did like the old-fashioned cellars because they were often damp, draughty or dusty and were places that invited the storage of odds and ends of dust-collecting materials for which there could never be any great use.

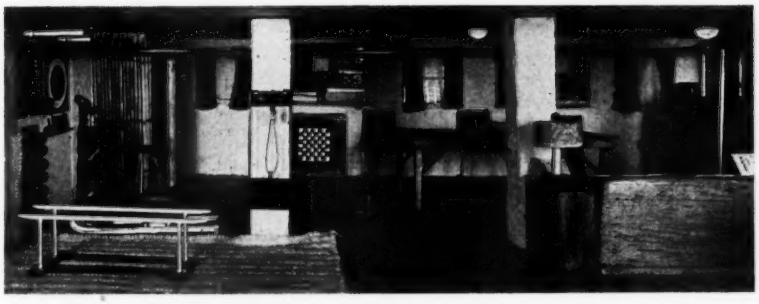


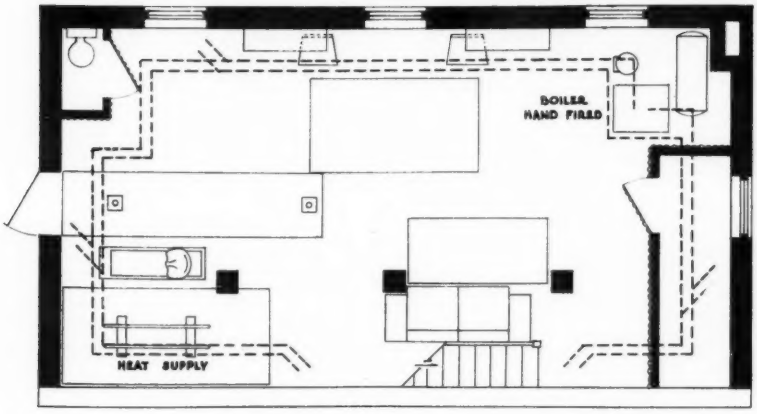
Here's the room itself! It is attractive, useful and economical. The cost is as follows: Paint, new door and partition, $132.50; special furnishings, $71.68; total, $204.18. Conditioning equipment would be extra according to selection.



The plan shows, in addition to the utility room, space for the wine cellar, closed off storage space and air-conditioning equipment. It was suggested that forced hot water heating be used.

The illustrations accompanying this article are used by courtesy of The American Radiator Co.'s "Castles Underground"





A well-designed recreation room which was planned for a small cellar. Total cost was given at $273.25, including all alterations, repairs and furnishings. Gravity warm water, coal-fired heating was recommended with combination incinerator and domestic hot water supply heater as is seen in the plan.

When new or so-called "model" houses are opened in your community they will often be equipped with "whoopee" basements or with modern and efficiently planned basement laundry rooms. People usually enjoy visiting and thoroughly inspecting "model" homes. Many return to their own residences with the thought that some of the features they have seen in a "model" home can easily be incorporated in or adapted to their own homes. If "model" homes open for inspection in your community have recreation or utility basements many owners of old homes will conceive the idea that, "We ought to have a basement like that." A hardware dealer can get ideas from new "model" homes—ideas which he can sell to his own customers.

Almost any home owner in your community has some funds which can be used for making improvements in the old cellar. Some people will be in a position to have a complete remodeling job done. Others will only feel able to invest in paint, a new floor covering and some recreation equipment. Whether the remodeling project is to be complete, planned for execution over a period of months or chiefly a repaint and cleaning up job there will be real profit in it for you.

A complete list of articles which can be sold in connection with basement remodeling projects would be a very lengthy affair. Here are a few suggestions: heating, ventilating or air conditioning equipment, linoleum or oil cloth covering, paint, unfinished furniture, some items of summer furniture, parlor games, lighting equipment, electrical appliances for a basement laundry, and glassware, mixers, etc., for a private bar. Some people will be interested in sporting equipment such as a punching bag and accessories, miniature pool tables, table tennis equipment, rowing machines, and a variety of exer-

And here is the cellar in its original state before it was turned into a recreation room.

cise equipment. Midget radios, small size refrigerators, home workshop equipment, electric wall clocks, bridge tables and chairs to match and even Venetian blinds are other items which might be needed for a basement remodeling project.

When the customer elects to give the modernized basement over chiefly to a laundry set-up, items such as washing machines, electric iron or ironer, drying cabinets or racks, laundry tubs, water heaters and laundry stoves are possibilities. Such a set-up may offer a market for additional wiring and lighting facilities, water proofing, new plumbing and floor covering.

When a "model" home is opened for inspection in your community, visit it and see how the basement has been utilized. You will get some good ideas as to the various articles you can sell to owners of older houses. If the "model" is similar in size to older residences in your community, so much the better, for you have a definite mark at which to shoot in the preparation of a proposed plan to submit to the homeowner.

Use Your Own Cellar

Making the cellar of your own home into a modern "basement" —either for recreation or utility purposes—would be as good a sales starter as any. If your basement has the usual coal bin and collection of materials having little or no value and you remodel it, "before" and "after" photos taken by a competent photographer would be useful in showing prospects what your organization can do in modernizing a cellar. These pictures and a detailed outline of the costs of the remodeling job would be powerful ammunition in your sales campaigns for basement modernizing projects. Because much of the equipment used in the project in your home could be taken from your own stock, or could be obtained through your store at dealer cost, you would have to do some careful figuring in order to tell a prospect just what the costs would be for such a project in his home. With much, if not all, of the labor performed by your own store staff you would also have to estimate carefully what similar work would cost your prospect.

With the possible exception of the few weeks just before Christmas the remodeled basement idea should have sales appeal during practically any season of the year, for a properly equipped and efficiently executed layout would provide a recreation or utility center the year 'round. If you can sell your prospect on air conditioning the year 'round usefulness of the basement will be that much easier to put across.

Invite Prospects

Invite prospective customers to see your own remodeled basement and show the "before" and "after" pictures in direct mail or newspaper advertising. You can also utilize the photos of your basement in displays in your show windows with various items needed for remodeling the basement. Talking cards briefly outlining the extent of the remodeling and the cost of the project should be used. Similar material could be published in newspaper advertisements and in direct mail material or handbills. In many communities the local newspapers would be glad to publish news items telling about a remodeled basement in a dealer's home, particularly if the basement were to be open for general inspection for a specified period of time, immediately after its completion.

When talking about or advertising the basement modernization idea always emphasize the fact that such an improvement adds greatly to the salability of a home, regardless of its age.

Some manufacturers of air conditioning, heating and ventilating equipment, paints, summer furniture, unfinished furniture, private bar equipment, home laundry equipment, pool tables, etc., have considerable printed material on the subject of utility and "whoopee" room layouts for basements. Women's magazines and magazine sections of newspapers also publish illustrations and editorial matter on utility and playroom layouts for basements. From this material a wealth of ideas may be obtained for selling your prospects the idea of remodeled basement projects. Seeking and keeping such data in your files would give you many good sales ideas.

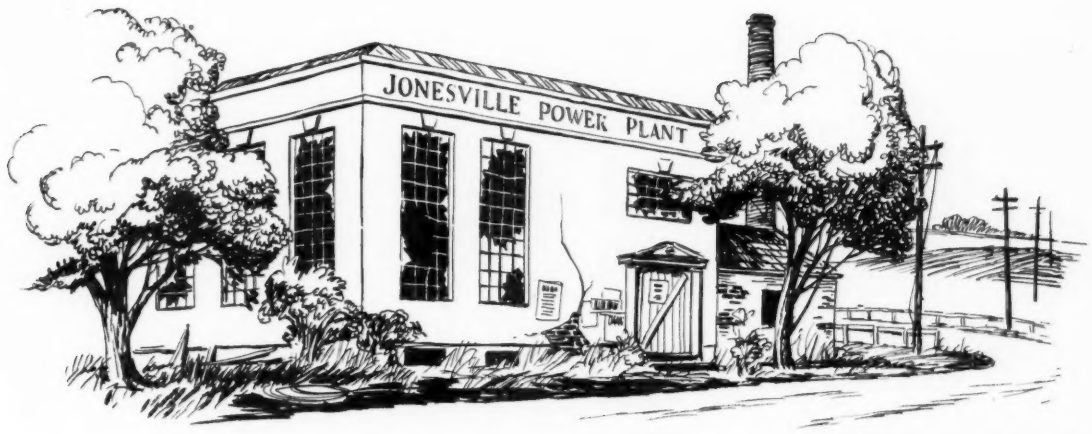
That a cellar in an old home can be transformed at reasonable cost into a modern utility or "whoopee" basement was well demonstrated, early last year, by students of the Parsons School of New York and Paris (The New York School of Fine and Applied Art). In collaboration with the American Radiator Co., the Parsons School held a competition for its students in which the making of plans for remodeling cellars was the problem. Each student selected an old and untidy cellar and made a miniature model to scale, showing how the cellars they selected for study could be remodeled for recreation or utility purposes.

Illustrations of two of these miniature models, together with pictures of the actual basements for which the model layouts were made, are shown in these pages and the estimated costs for making the alterations follow. These two models were shown, together with other miniatures, at the American Radiator Co. showrooms in New York City during its "Castles Underground" exhibit some months ago.

This Room Cost $204.18

The combination sewing and laundry room shown could have been executed early in 1936, in New York City, for approximately $132.50, including paint, repairs and cabinet work. Special furnishings would have come to an added total of $71.68, in addition to which there would have been the cost of electrical appliances and conditioning equipment. Another utility room, included a laundry and storage equipment for gardening tools. A home workshop set-up was included in this model but unfortunately this part of the basement was not shown in the photo. Alterations, paint and cabinet work for that project

(Continued on page 65)



1264 of these municipal plants ceased operation in nine years.

Rural Electrification—

Its Progress and Limitations

By WALTER F. DUNLAP

President,
Klau-Van Pietersom-Dunlap Associates, Inc.
Milwaukee, Wis.

RURAL electrification is a very desirable thing, provided such electrification can be supplied to the farmer at a cost within his means. The government has set aside a sum of $440,000,000 to be used in a ten-year electrification program in rural America. It proposes to loan groups of farmers the entire cost of building transmission lines and already quite a large number of cooperatives have been formed to make use of this government money.

Fundamentally, this movement on the part of the government has a great many things to recommend it. Already it is bearing fruit. It has spurred into action many privately owned utilities which had not taken advantage of their opportunities and they are today taking electricity into the farm fields where they believe the high lines will prove productive in the next few years.

The trouble, however, with government-financed movements has usually been that they go too far afield — expanding beyond the limits of what can be productive and economically sound.

This article is not written with the intention of criticizing any government agency, or of injecting politics into a question of pure economics. If the writer had any criticism to offer it would not be of the desirability of electrification of rural America, but rather a criticism of those who have permitted their wishes and aspirations to bias their judgment and cause them to make promises which seem impossible of fulfillment.

WALTER F. DUNLAP

The idea of a group of people joining together to supply their own electricity is not at all new. A great many municipalities have tried it. They have raised money by bonding themselves and establishing their own electric plants and distribution systems. In 1923, there were 3066 such plants in operation. In 1932 (the latest census figures) 1264 of these had gone out of existence. Failed! Busted! Sold out! That is 41 per cent in nine years. *Some* mortality!

Please do not construe this as a statement against municipal operation of electric utilities. As a matter of fact, a large number of such plants are successful. But let us consider only the failures.

The reason for the failures is that many municipalities in their desire to render low cost service, did not set up sufficient depreciation and maintenance reserves. Consequently, the time soon came when the service was not only bad, because of the run-down condition of the system, but also because such "co-ops" did not have enough money left on hand to make the major repairs which were necessary. Then the systems were sold out to the private utilities, who, in

many cases, because they were manufacturers and distributors of electricity in a large way, were able to reduce the rates.

Now, what difference does it make whether the money necessary to finance such service is borrowed from the public on bonds, or borrowed from the United States government? In either case, what assurance will we have of the success of the plant? If nearly 2000 plants have failed, which borrowed the money from the public, what assurance have we that the five hundred or a thousand that borrow money from the government to do the very self same thing will succeed?

Now let us check the situation in detail just a little bit:

In the first place, the United States Government is loaning for rural electrification, $1,000 a mile for the erection of the transmission system. It expects this money returned in installments so that all will be repaid in 20 years. It also expects interest on the money.

Now naturally, if an electric cooperative company is to succeed, it must make money, so just let us see what things are needed to make it a success. There are three things which are considered very essential.

The Essentials

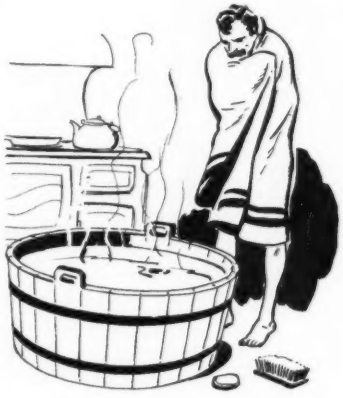
1. The proper number of customers per mile to be served. The government says "at least three."

2. The average amount of electrical service to be used by each customer. The government says "100 kwh. a month."

3. The rate to be charged for such service.

The erroneous impression has been given that farmers are to enjoy electrical service everywhere within a short time and for anywhere from $2.00 to $3.00 to $4.00 a month. Now isn't such misinformation damaging to the cause of rural electrification as a whole? It is also holding out a false hope to the farmer and causing him to withhold purchases of stoves, water systems, washing machines, pumping outfits, radios and many other articles while waiting for hi-line service that may never be an economic possibility.

First of all let us bear in mind that in many, many communities there are less than three farms to the mile. In Nebraska, the average is 1.6 farms per mile. In Wisconsin, 37 out of 71 counties, or approximately 52 per cent have



The use of bathtubs on farms has increased only 2 per cent during the last four years.

less than three farms to the mile. The average for the state even including Milwaukee County is 3.1. So, in the first place many communities cannot have three prospective customers to the mile, because there are not that many farmers to the mile.

The next fact to consider is that among more than 6,000,000 farms in the United States, 2,600,000 are run by tenants and not by the owner. Now it costs anywhere from $200 to $1,200 to wire or electrify a farm. Will not tenants who have a lease from year to year hesitate to spend from $200 to $1,200 to electrify somebody else's farm? And will the farm owner who lives in town think a long while before he puts up such a sum in order to give his tenant this comfort? He remembers that kerosene lamps were all he had while he was on the farm. He generally thinks very little of his tenant's comfort anyway and, in most cases, isn't it reasonable to suppose that he will think the tenant is not entitled to such conveniences?

Next, there are 1,093,996 farms on which all the buildings are valued at less than $500. It is impossible to classify such farms as to which are owner-operated and which are rented; but is it not ridiculous, in either case, to expect that many of these million farmers will electrify at a cost of from $200 to $1,200 when the value of all the buildings on each farm is less than $500?

The experience of the private utilities, so far, has been that approximately 20 per cent of the farmers on the average high line, even after many years still do not take electric service. And the experience of the cooperatives thus far has proved that they cannot obtain the necessary three users to the mile excepting in the most densely settled communities—districts which have four, five and six farms to the mile.

To give some idea of how slowly farmers adopt new ideas, remember that all the farmers of the United States increased the number of bathtubs from 11 to 13 per cent, or showed only a 2 per cent increase in the use of bathtubs on the farm—*in the last four years.*

They have increased the number of homes having running water in the last four years only 3 per cent.

They have increased the number of homes with *hot* running water in the last four years only 2 per cent.

They have increased the number of homes with furnace heat in the last four years only 4 per cent.

They have increased the use of milking machines in the last four years only 4 per cent.

Percentage Is Low

In rural America today less than 17 per cent of the homes are electrified. Five out of every six homes still have no hi-line service. There is nothing in the world to stop the farmer, even though he is without electricity, from having bathtubs, cold running water, hot running water, furnace heat or milking machines, except the lack of desire or the lack of money. Yet in such improvements he has been proceeding at a fractional per cent a year.

With the very prosperous years in the farm field presumed to be directly ahead—and with the tremendous educational influence of the farm, press and radio—it seems a shame to stunt the buying desire which would mean millions

and millions of dollars of non-electric sales. But the spreading of the erroneous belief that electricity is "just around the corner" will do that very thing.

There are still some people who think the farmer is going to right-about face and *all-electrify* within a year or two. As a matter of fact, the utilities and the REA combined in 1936, did not electrify as many homes in the farm field as were electrified in 1928 when there was no REA. In the first six months of 1937 with all of the utilities attempting to establish lines where the population is thick enough, and trying "to beat the government to it," we have increased the number of electrical homes by less than 2 per cent.

Financing Difficult

But even this rate of electrification may not continue. Utilities generally haven't the necessary capital funds for such rural expansion and due to the government's attitude toward them find such financing almost impossible to obtain at a reasonable cost. Farmers, too, will not have sufficient money, or will not be willing to pay the price they are going to have to pay. Let us see just what a farmer will be called on to pay to support such a program.

The government is loaning $1,000 a mile. It wants this $1,000 back with interest at the rate of 3 per cent in 20 years. So then we get a figure something like this, figuring three customers to the mile:

Annual Payment to REA for *each* farm customer ($2.00 a month)	$24.00
Annual maintenance and operation for *each* customer. (This means keeping the lines in order, replacing insulators that are broken or shot away, replacing poles that have been blown down, rotted off at the base, etc., cutting limbs along the line, replacing faulty transformers, meters, etc., reading and testing meters, bookkeeping, billing and collecting)	15.00
Now there will be some depreciation of this line and of these transformers and of the meters, estimated per year, for each customer, at	10.00
(With three farms on the line, each farmer paying $10.00 a year we have $30.00 a year and the line would have to stay up over thirty years to make this estimate wrong.)	
Now next there must be taxes on the property. That has already been settled by law, and these taxes will probably be in the neighborhood, *per customer*, of	4.95
(That is figuring a $333 investment per farm and figuring that the government demands a 3 per cent electricity tax.)	
Now we have figured all the cost of this except the actual cost of the power. Here is rather an interesting thing. In all of the cooperatives so far they have agreed to pay for all of the current that goes on to the line. Now there is quite a large loss of electricity through transformers, line leakage, etc. In fact it will amount to about 30 kw. a month per customer. Will the farmer use 100 kw. per month? That is very unlikely—especially when we know that over 50 per cent of the utilities' residential customers in a city like Milwaukee, use less than 50 kwh. a month, or one half what the farmer is expected to use.	
The government figures that each farm should use 100 kw. a month, but if the farmer does use 100 kw. then the cooperatives will have to buy 130 kw. That current is being bought on the average for about 1¾ cents per kilowatt. So if the farmer uses 100 kw. and there are 30 kw. wasted, he must pay for 130 to cover the loss, and that is $2.27 a month or per year	$27.24
Or a total annual cost for operation per farm customer of	$81.19
Or a monthly electric bill of $6.76.	

Now these figures cover only part of the actual cost. There is nothing included here for general expense or the cost of building load . . . (and the farmer will not build his own electric load any more than our city folk have. Millions and millions have been spent educating our citizens to use electricity) . . . the cost of changing customers, uncollectible accounts, insurance, fire and liability, and it is certain that if these items were included with a reasonable margin of safety, Mr. Farmer would have to pay $8.00 or $9.00 a month, provided the projects are to succeed. How many farmers will pay or can afford to pay that sum for electric service?

Variation in Charges

There has been, so far, a wide variation in the charges made for 100 kwh. per month by the few REA cooperatives in operation. Too many of them figure only the amount to be returned to the government to liquidate the loan . . . $72.00 per mile per year plus cost of current and a small sum for operation such as billing and collecting. They too often overlook such items as depreciation, liability and fire insurance, maintenance, etc. The result has been that some rates could not continue. They were far too low.

To find out what the average farmer would pay, a survey or study was made of 605 prospective farm customers on a projected line. These farmers were asked "if a line could be built, would they be willing to guarantee as little as $5.00 per month for 20 years?" 581 said "*No*" and only 24 signified their willingness.

Now in considering this question it's just as well to know that

(*Continued on page* 61)

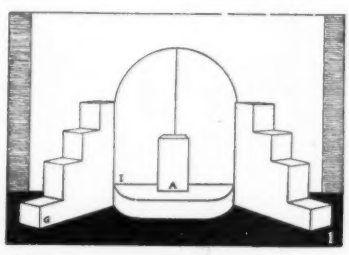
The number of rural homes equipped with running water has increased only 3 per cent in the last four years.

Why Not Get Your Share of

CHRISTMAS is over, the holiday sales have been made and the seasonal window displays have been dismantled.

We'll assume that the average hardware dealer has had his share of the Christmas business and is feeling that there is a Santa Claus after all. But the question may persist in his mind as to whether or not he has really gone the limit, combed every possible source of holiday profit. The chances are he hasn't and right at this point let us make a suggestion.

There's many a perplexed and busy father who couldn't come to a decision as to just what gifts he should purchase for his family. The nearer he came to Christmas the more acute his mental condition became. Finally, as a last resort, he made his gifts in the form of checks or cash and put the actual purchasing up to the recipients. And that's where the hardware dealer comes in. How about turning some of that Christmas cash into hardware profits?



The suggestion should be made in these after-Christmas displays that people have surplus money to spend on something that they have always wanted. Get that idea firmly fixed in your minds and then go after the fortunate ones who have received their Christmas gifts in the form of money.

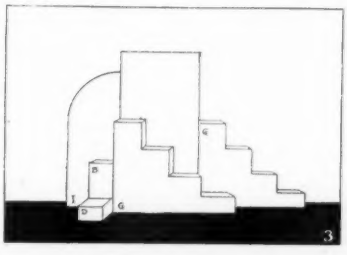
The window displays shown on these pages were designed to have an appeal to this particular class of prospective purchaser. The HARDWARE AGE interchangeable

That Christmas Gift Money?

display fixtures have been used to advantage in each of these window displays

The display shown at the left is directed to the attention of the feminine prospect and contains a number of articles the average woman usually wants but sometimes doesn't get. Note the fact that with one or two exceptions, they are all smaller items. The display is of the balanced type with articles symmetrically arranged. The center panel bears a silhouette cartoon of Sherlock Holmes which may be easily cut from black paper. The accompanying legend tells the story. The color used in the fixtures and background should be strong enough to catch the eye. Green, medium brown, orange or yellow should be effective.

The other window is designed primarily for male attention and



the items shown include those things that almost every man wants to buy for himself. The legend on the streamer and on the humanized interrogation mark serve to drive the purpose of the window home. This display is of the unbalanced type and runs from left to right where the eye is met with the question mark. The colors in this background may be the same as were used in the other window.

It should be an easy matter to make either the streamer or the question mark from paper or cardboard. And by all means have them either in black or in some dark contrasting color.

Sherwin-Williams Honors

H. D. WHITTLESEY

Dinner at Cleveland, Dec. 14, also celebrated 25th anniversary of 14 other employees. Honored guest started as office boy and worked successively through minor positions to a major executive's place in this large organization, building host of friends as well as successful business record

THIS is the story of a presentation dinner given by the officers and directors of the Sherwin-Williams Co. to a group of its men who in 1937 had completed 25 years of service with the company and to one who had finished 50 years. Gathered to do these 20 men honor were some 300 or more of their associates, a large proportion of whom had long since passed their 25th anniversaries with the company. It was noteworthy that among these long service employees, every branch of the business was represented; if anything, the factory or production end outnumbered the office, sales and executive departments in the number present and in the years of continuous association with the organization.

That the event had more significance than a passing or customary company dinner, was attested by the presence of officers and directors who had come from California and England, by district sales and plant managers from all parts of the country, and by descendants of the founders of the company to the third and fourth generation.

Honoring its veterans in this manner is an old and established policy of the Sherwin-Williams Co. It began in the early 80's, when Henry A. Sherwin, founder of the company, gave the first dinner and established the plan as a permanent policy of the company. Since that time, 824 men and women have attained the long service distinction and 501 are still active workers in the organization. This is a record for any company or organization to be proud of, and indicates a relationship, contentment and participation in the company's success which denies the phrases about "economic royalists" and "forgotten men" so easily and frequently bandied about in these recent years of labor unrest and suspicion.

Henry DeWitt Whittlesey, the first vice-president and general sales manager of the company, was the 50 year man. To him was given that night a tribute of affection by his associates that touched the hearts of all present. The lengthened shadow of this man to this institution not only stretched through 50 years of contribution and achievement in building a small local company to one of international proportions, employing today several thousand men and women, but reached out also into the hearts and homes of thousands of his fellow workers. This feeling was the keynote of the occasion, and it was their reciprocation which inspired a program of entertainment written and presented by the rank and file of the organization that aside from its originality and merit was both a tribute to the company and to the man who had given so much of his life and himself in building his company and the organization within it.

H. D. Whittlesey on His 50th Anniversary With the Company

PRESIDENT GEORGE A. MARTIN of The Sherwin-Williams Co., paint manufacturers, was host at a dinner December 14, 1937, at Hotel Cleveland, Cleveland, Ohio, to a capacity crowd of the company's directors, officers, executives, department heads, long-service employees and invited guests.

The occasion was in honor of the completion of 50 years' continuous service of the company's first vice-president, H. D. Whittlesey, and the completion of 25 years' continuous service of 14 other employees. Of this latter group, seven are from Cleveland, four from Newark, N. J., and three from Chicago, all having reached the twenty-five mark sometime during this year.

During the dinner hour, entertainment was provided by the S-W Glee Club, Louis Rich's orchestra, and Evelyn Mundy of the S-W Girls Club, soloist.

After the dinner, S-W employees presented a show "The Time of Their Lives," written and produced under the direction of Ruth Berwick, following which the long-service watches and scrolls were presented to the 25-year men by President Martin.

This was followed by Mr. Whittlesey's induction into the 50 Year Club by the two other living members, John Weber and Al Russell.

An Interesting History

A complete history of Mr. Whittlesey was then given, accompanied by pictures and movies, by C. M. Lemperly, the company's publicity director, who was also toastmaster of the evening, assisted by Earl Helfrick of the sales department. From this very human and interesting history we quote the following:

"Henry Dewitt Whittlesey was born in Madison, Wis., being the youngest of three children of Thomas Whittlesey and Charlotte Whittlesey, who had moved out West from New England.

"The elder Whittlesey was a farmer and at the time of his death was in the implement business in Brooklyn, Ohio. Young Dewitt was 12 years old at the time of his father's death which made it necessary for him to go to work shortly after completing Kentucky grade school in Cleveland. During odd times he kept busy with work on the farm, took over his brother's job with the Peoples' Gas Company, also had a milk route, sold papers and lighted street lamps, all of which were excellent training and hard work and were useful stepping stones to the sales and executive positions he was to hold later on.

"On October 10, 1887, at the age of 16, he decided to go after a permanent job and was accepted as office boy by Benton, Meyers and Canfield, wholesale druggists of Cleveland. He started out on a 'long' career in the drug business, but this turned out to be just 30 minutes as he took his lunch box and applied for a job at The Sherwin-Williams Co. offices and was hired by Mr. Sherwin as office boy, thus starting a long, enviable career in the paint

(Continued on page 64)

Standing left to right: Wm. Holcepl, "B" department, Cleveland factory; William Meisel, general stockkeeping department, Cleveland; R. D. McIntosh, supt. engineering, mechanical and power depts., Chicago; A. H. Burt, executive sales manager, general trade sales dept., Cleveland; George Wilson, supt. Newark varnish dept., Newark, N. J.; Nis J. Peterson, stationary engineer, Chicago; Charles Toll, stores and receiving dept. Cleveland, and Albert Bevins, finishing department, Cleveland. Seated left to right: G. L. Hehl, general supt. Newark factory, Newark, N. J.; E. E. Ware, general manager executive research, Cleveland, Ohio; G. L. Berger, industrial sales representative, Newark, N. J.; Walter A. Gorrell; vice president and general manager, John Lucas & Co., Philadelphia, Pa.; W. J. Peters, trade sales representative, Ohio and W. Va. division, Cleveland, and F. J. Squires, credit manager, North Atlantic district, Newark, N. J. There are five other 25-year Sherwin-Williams men who were not present at the dinner. They are: E. F. Kaneen, and W. B. Wagner, Los Angeles, Calif.; A. B. McDonald, Oakland, Calif., and William Brant and Floyd Johnson of Coffeyville, Kan.

Bolts Simplification Schedule

The following tabulations show the eligibility of the several sizes and lengths for consideration as standard stock items as summarized from the survey recording the individual manufacturers' recommendations and analyzed by the Committee on Standards and Technical Practices.

* Stock Items.
** Marginal Items Leaning Toward "Stock."
— Special Items.

SQUARE NECK CARRIAGE BOLTS
(American Standard)

Length	NOMINAL SIZE							
	10	¼	5/16	⅜	7/16	½	⅝	¾
½	**	*	–	–	–	–	–	–
⅝	**	*	–	–	–	–	–	–
¾	*	*	*	*	–	–	–	–
1	*	*	*	*	*	*	–	–
1¼	*	*	*	*	*	*	–	–
1½	*	*	*	*	*	*	*	–
1¾	*	*	*	*	*	*	–	–
2	*	*	*	*	*	*	*	**
2¼	*	*	*	*	**	*	–	–
2½	*	*	*	*	*	*	*	**
2¾	–	*	*	*	**	*	**	–
3	*	*	*	*	*	*	*	**
3¼	–	*	*	*	–	*	–	–
3½	*	*	*	*	*	*	*	**
3¾	–	**	*	*	–	**	–	–
4	*	*	*	*	*	*	*	**
4¼	–	–	**	**	–	–	–	–
4½	–	*	*	*	*	*	*	*
5	–	*	*	*	*	*	*	*
5½	–	*	*	*	*	*	*	*
6	–	*	*	*	*	*	*	*
6½	–	*	*	*	*	*	*	**
7	–	*	*	*	*	*	*	**
7½	–	**	*	*	**	*	*	**
8	–	*	*	*	*	*	*	**
8½	–	–	–	*	–	*	–	**
9	–	–	**	*	**	*	*	**
9½	–	–	–	*	–	*	–	–
10	–	–	*	*	*	*	*	**
10½	–	–	–	–	–	*	–	–
11	–	–	–	*	–	*	**	–
11½	–	–	–	–	–	**	–	–
12	–	–	–	*	–	*	**	–
13	–	–	–	–	–	*	–	–
14	–	–	–	–	–	*	–	–
15	–	–	–	–	–	**	–	–
16	–	–	–	–	–	*	–	–
18	–	–	–	–	–	**	–	–

SQUARE HEAD MACHINE BOLTS
(Am. Std. Regular)

Leng.	NOMINAL SIZE										
	¼	5/16	⅜	7/16	½	⅝	¾	⅞	1	1⅛	1¼
½	**	**	–	–	–	–	–	–	–	–	–
⅝	–	**	–	–	–	–	–	–	–	–	–
¾	*	*	*	–	–	–	–	–	–	–	–
1	*	*	*	*	*	*	**	–	–	–	–
1¼	*	*	*	*	*	*	*	–	–	–	–
1½	*	*	*	*	*	*	*	**	–	–	–
1¾	*	*	*	*	*	*	*	**	–	–	–
2	*	*	*	*	*	*	*	*	**	–	–
2¼	*	*	*	**	*	*	*	*	–	–	–
2½	*	*	*	*	*	*	*	*	*	–	–
2¾	*	*	*	–	*	*	*	*	–	–	–
3	*	*	*	*	*	*	*	*	*	–	–
3¼	**	**	*	–	*	*	*	*	–	–	–
3½	*	*	*	*	*	*	*	*	*	–	–
3¾	–	–	*	–	*	*	*	**	**	–	–
4	*	*	*	*	*	*	*	*	*	**	**
4¼	–	–	–	–	**	**	*	**	–	–	–
4½	*	*	*	*	*	*	*	*	*	**	**
4¾	–	–	–	–	**	**	**	–	–	–	–
5	*	*	*	*	*	*	*	*	*	**	**
5½	*	*	*	*	*	*	*	*	*	**	**
6	*	*	*	*	*	*	*	*	*	*	*
6½	**	**	*	**	*	*	*	*	*	–	–
7	**	*	*	**	*	*	*	*	*	**	**
7½	–	–	*	–	*	*	*	*	*	–	–
8	**	**	*	**	*	*	*	*	*	**	**
8½	–	–	*	–	*	*	*	**	–	–	–
9	–	–	*	**	*	*	*	*	*	**	**
9½	–	–	**	–	*	*	*	–	–	–	–
10	–	–	*	–	*	*	*	*	*	**	**
10½	–	–	–	–	*	*	*	–	–	–	–
11	–	–	*	–	*	*	*	*	*	**	**
11½	–	–	–	–	**	**	**	–	–	–	–
12	–	–	*	–	*	*	*	*	*	**	**
13	–	–	–	–	*	*	*	**	*	–	–
14	–	–	–	–	*	*	*	*	*	**	**
15	–	–	–	–	*	*	*	*	*	**	**
16	–	–	–	–	*	*	*	*	*	**	**
17	–	–	–	–	**	*	*	**	**	**	**
18	–	–	–	–	*	*	*	*	*	**	**
19	–	–	–	–	**	**	*	**	**	**	**
20	–	–	–	–	*	*	*	*	*	**	**
22	–	–	–	–	**	*	*	**	**	–	–
24	–	–	–	–	**	*	*	**	**	–	

EDITOR'S NOTE—This Simplified Practice Recommendation SPR No. 169-37, covering Machine, Carriage, and Lag Bolts (Steel), stock production sizes, was adopted by the industry on Nov. 1, 1937. It eliminates approximately 35 per cent in catalogued sizes of bolts of the types covered. The sifting out of those bolts of little use, and concentration of production and use upon those items in greatest normal demand, should result in savings in manufacturing costs, lowered inventory requirements for the distributor, and the elimination of seldom used items carried by distributors and manufacturers. The American Institute of Bolt, Nut and Rivet Manufacturers, Cleveland, Ohio, cooperated with the Division of Simplified Practice, U. S. Department of Commerce, Washington, D. C., in bringing about this simplification program.

HEXAGON HEAD MACHINE BOLTS
(Am. Std. Regular)

Length	NOMINAL SIZE						
	1/4	5/16	3/8	1/2	5/8	3/4	7/8
1/2	**	–	–	–	–	–	–
3/4	*	*	*	**	–	–	–
1	*	*	*	*	–	–	–
1 1/4	*	*	*	*	**	**	–
1 1/2	*	*	*	*	*	*	–
1 3/4	**	**	*	*	*	*	–
2	*	**	*	*	*	*	**
2 1/4	–	–	–	**	**	**	–
2 1/2	**	**	*	*	**	*	**
2 3/4	–	–	–	**	–	–	–
3	–	**	**	**	*	**	**
3 1/2	–	–	**	**	*	**	**
4	–	–	**	**	**	*	**
4 1/2	–	–	–	**	**	**	**
5	–	–	–	**	*	*	**
5 1/2	–	–	–	**	**	**	–
6	–	–	–	**	**	**	**

LAG BOLTS
(American Standard Regular Square Head)

Length	NOMINAL SIZE						
	1/4	5/16	3/8	7/16	1/2	5/8	3/4
1	*	*	*	–	–	–	–
1 1/4	*	*	**	–	–	–	–
1 1/2	*	*	*	**	*	–	–
1 3/4	**	*	*	–	–	–	–
2	*	*	*	*	*	*	–
2 1/2	*	*	*	*	*	**	**
3	*	*	*	*	*	*	*
3 1/2	*	*	*	*	*	*	**
4	*	*	*	*	*	*	*
4 1/2	*	*	*	**	*	*	*
5	*	*	*	**	*	*	*
5 1/2	–	**	*	–	*	**	–
6	**	*	*	**	*	*	*
6 1/2	–	–	–	–	**	–	–
7	–	–	*	–	*	*	**
8	–	–	*	–	*	*	*
9	–	–	–	–	**	**	*
10	–	–	–	–	*	*	*
11	–	–	–	–	–	**	**
12	–	–	–	–	–	**	*

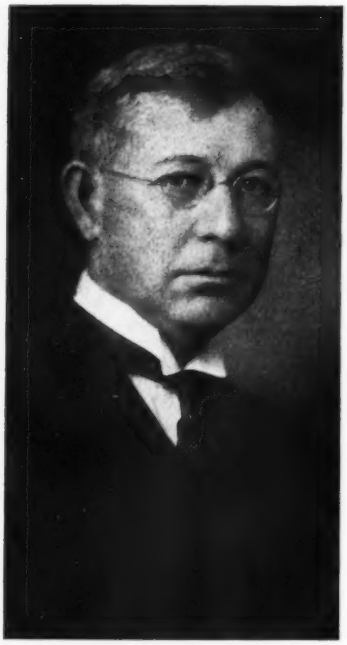
Announcing—

The Hardware Age Discount Handbook

PUBLISHED as Section Two of this issue, the HARDWARE AGE DISCOUNT BOOK is presented to our readers as an additional plus service. It is another useful working tool that promises to save hours of laborious price figuring. It will eliminate costly inconsistencies and inaccuracies in determining cost and selling prices on bolts, nuts, screws, rivets, washers and other screw machine products.

The use of this Handbook enables all members of the selling staff to quote the same prices for the same type, size and quantity, giving at a glance net prices figured against standard list prices at varying discounts. A range of discounts, sufficient to care for practically all hardward trade requirements, extends the scope of these discount tables to all types and sizes of businesses.

All the tables in this Discount Handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices or of market conditions.



SHANNON CRANDALL

Shannon Crandall Honored

Testimonial banquet is given by his business associates and friends in recognition of his 50 years as a leader in the hardware industry

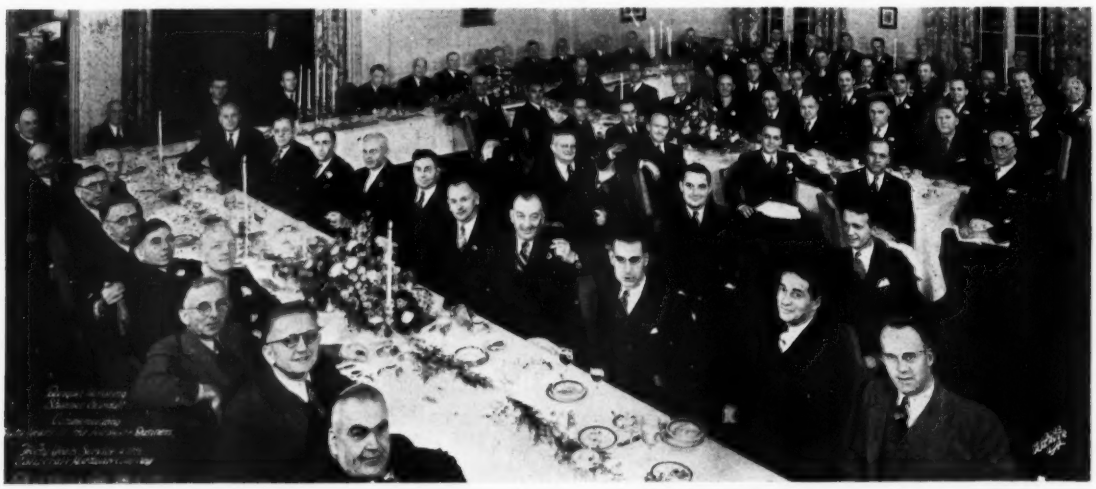
BUSINESS associates and friends of Shannon Crandall, president of the California Hardware Co., wholesale hardware distributors of Los Angeles, Calif., and president of the National Wholesale Hardware Association, tendered him a testimonial banquet in honor of his 50 years of activity at the Midwick Country Club, Los Angeles, on Friday, Dec. 3. Many of those who were present were veterans of the California Hardware Co. and had been associated with him since they were boys just out of school. Mr. Crandall celebrated his golden anniversary in the hardware business on May 26, 1937.

The souvenir program, with attractive gold-colored cover, carried an excellent likeness of Mr. Crandall and contained a fitting tribute to his fine record in the hardware industry. E. P. Hallock, sales manager of the California Hardware Co. and master of ceremonies for the evening, read the tribute which said, "Shannon Crandall—In Commemorating your Fiftieth Year in the Hardware Business, and your Fortieth with the California Hardware Co., we, your friends and associates, do wish to acknowledge our deep gratitude to you and express our appreciation of what our association with you through that period of time has meant to us."

Mr. Hallock told of his own 22 years of association with Mr. Crandall, saying that through all those years, "I have found Mr. Crandall to be tolerant, fair, sympathetic and understanding—a friend when in need and a steady guiding hand in time of trouble."

John Blayney, auditor of the company, told of the rapid business and financial strides made by the organization under Mr. Crandall's leadership. He asked what Mr. Crandall had meant to each member of the company

(Continued on page 56)



Scene at the testimonial banquet tendered Shannon Crandall at the Midwick Country Club, Dec. 3, 1937.

Hardware Facts

By ROBERT PILGRIM

Copyright, 1937, by Hardware Age

MORE BICYCLES WERE MADE THIS YEAR THAN IN 1899, PEAK YEAR OF THE "BICYCLE CRAZE"!
A TUB WITH AN OVEN ATTACHED FOR PROVIDING HOT WATER WAS A SIXTEENTH CENTURY FORE-RUNNER OF OUR MODERN BATH
OH, WELL, I'M GETTING A DINNER-
TICK-TOCK
PROSPECTIVE DINNER GUESTS IN TIBET SEND SERVANTS TO FIND OUT WHAT TIME IT IS BY THE HOST'S CLOCK! (TIBETAN CLOCKS RARELY AGREE, BUT EACH OWNER IS SO PROUD OF HIS CLOCK, HE'S SURE IT HAS THE RIGHT TIME!)
THE ODOR OF NEW PAINT CAN BE LESSENED BY PLACING A LITTLE HAY, AND ONIONS IN A PAIL OF COLD WATER. THIS ARRANGEMENT ABSORBS THE ODOR

Our Foreign Citizens

By SAUNDERS NORVELL

THE so-called "one hundred per cent American" as a rule is very ignorant and very narrow in his views and in his contacts with foreign born Americans. The ancestors of the one hundred per cent American probably came to this country from some foreign country two or three generations ago, possibly further back. There were waves of migrations to this country. In those days there were no restrictions.

After a revolution in Germany in the time of Carl Schurz, thousands of Germans, and very high-class Germans, migrated to this country. Many of them settled in St. Louis. A very large percentage of the population of St. Louis, known as one of our leading "American" cities, is composed of Americans of German descent.

The city of St. Louis was first settled by the French. They came north in flatboats from New Orleans, led by Laclede. Then, following a great famine in Ireland, there was a migration of the Irish to the United States, many of whom settled in St. Louis. So the Irish in St. Louis married the French, and this led to a great conglomeration of French and Irish names. Then later came the Germans.

The French were vivacious, good cooks, high livers, and while they were the best of company and added to the gaiety of the city they were not thrifty. It is a curious fact that the Irish as soon as they landed went in for political jobs. They became policemen and the City Hall was full of them. It is a queer twist of pyschology that the Irish do not go into business for themselves. They prefer to work for wages.

When the Germans came they went into business. They opened their own shops. They became manufacturers. They developed the great beer business of St. Louis. And, following the natural laws of saving and spending, the Germans became the great manufacturers, merchants and landowners of St. Louis. I refer to this evolution in St. Louis because in a general way the same thing happened in almost every other city and state in the country.

During the War

When the World War broke out I was connected with a concern manufacturing drugs and chemicals. We had headquarters in New York City, with large factories in Brooklyn. Most of our employees were Germans. When the United States declared war against Germany, many of them prepared to leave the country by way of Mexico. They thought they would be interned here as prisoners of war. I went to Washington to see about the situation, and was told that if our German workmen would agree to attend strictly to their own business, they would not be disturbed. I was told if we would stand as sponsors for the conduct of our German employees we would be authorized to tell them this as coming from the government. So one day I went over to our factory in Brooklyn, gathered all the employees in the courtyard of the factory, climbed up on a barrel and made them a speech. When I finished there were enthusiastic cheers. Then Dr. Schaeffer, head of our factory, a German himself, told me my speech was excellent, but it was just too bad that most of our employees did not know what I was talking about as they did not understand English. So then I helped Dr. Schaeffer up on the barrel and he told them in German what I had said. There were more cheers.

Shortly after this agents from the United States government called and asked the privilege of seeing our employees and asking each of them to buy a dollar's worth of war stamps out of every week's salary. We, of course, consented, and I received a telephone call the next day stating that our factory had accepted this plan one hundred per cent. We would be given a diploma to hang on the wall. Of course, we were all very proud of this. A day or two after this, Dr. Schaeffer called me on the phone and asked me to come immediately to the factory. When I arrived I found that the employees had made a unanimous demand for a $2.00 weekly increase in salary, explaining that $1.00 was for the government and the other dollar for themselves. We were loaded up with orders from the government so we met their views. They couldn't speak English but they knew how to count American money. However, all of our employees remained with us.

We filled orders for all kinds of drugs and chemicals for the United States government, and we never had trouble with a single foreign employee. Nor did we ever have any trouble about the quality of our drugs. Good Dr. Schaeffer is dead. I always had the greatest respect for him not only as a great chemist and first class manufacturer, but also because of the tactful and fatherly manner in which he dealt with our foreign born employees

Now a little magazine comes to my desk called "*Kram-Full.*" It

Another TRUE TEMPER Extra Value

NEW PRICE - TAG FOLDER, PLAYS CASH REGISTER TUNES

HERE is another TRUE TEMPER business builder—the new Price Tag Folder, shown at right.

Attached to each tool this folder, first of all, serves as a price tag; then it sells the tool to which it is attached; next it illustrates and sells more than 30 other tools; last it tells the customer how to get a new TRUE TEMPER Garden Book.

Yet this is only one of the many merchandising features that play cash register tunes for the merchant handling TRUE TEMPER Tools. Our new booklet, "What TRUE TEMPER will do for you in 1938" is free on request. Ask your jobber's salesman about it, or write us direct. Your inquiry will receive our prompt attention.

THE AMERICAN FORK & HOE CO.
Makers of Essential Tools • Cleveland, Ohio

Extra Values, No Extra Cost

Extra Value No. 1—An exclusive special analysis steel is used in all TRUE TEMPER Forks. This steel is 30% stronger and 50% tougher than regular fork steel.

Extra Value No. 2—The exclusive patented TRUE TEMPER Tubular Ferrule used on TRUE TEMPER Forks is 25% stronger than old style ferrules—a smooth fit—no rivets or edges to irritate the hand.

Extra Value No. 3—Longer sockets on hoes, longer ferrules on rakes and other tools, give 25% more strength.

Extra Value No. 4—Handles made of select second-growth ash—sanded, waxed and polished to slide easily in the hand. Natural white finish—no stain or dye to cover up defects.

Extra Value No. 5—Finer balance built in, so that TRUE TEMPER Tools are easier to use.

Ask for

TRUE TEMPER

AMERICA'S FINEST TOOLS

is published monthly by Louis Kram, Inc. and represents the Foreign Language Press in America. I have found this magazine to be full of interesting facts about our foreign population. These facts I believe are not generally known and appreciated by many manufacturers and dealers. I am wondering for instance, how many retail dealers in a town where there is a large foreign population ever, just as a compliment to this class of citizens, paste signs on their windows in their home language. They do not have to keep these signs up all the time, but they could use them on certain dates that these foreign people may celebrate. This may be done in some of our cities but I never happened to see such a sign in a one hundred per cent American retail hardware store.

America a Sanctuary

One thing some of our hundred per cent Americans seem to have forgotten is that this country was originally dedicated by our forefathers as a sanctuary for the oppressed, underprivileged and downtrodden from all parts of the world. Being myself a member of the Sons of the American Revolution, I feel I have the right to call myself a one hundred per cent American. Sometimes, I must admit, some of the doings of our recent arrivals from foreign countries annoy me. In our records of crime, these foreign names do seem to predominate. Nevertheless, probably if we one hundred per centers could know just what was done by our forefathers the first year or two after they landed over here we might be more charitable. After all, it is a question of assimilation. This assimilation of the foreign element by the native sons of this country is a very interesting study.

Now we have found it necessary to limit the number of foreigners who are admitted to our shores. We are trying to keep out the worst element. This, no doubt, is wise. Nevertheless, we must remember that the blood of our forefathers was not shed to give special rights and privileges to us as one hundred per cent Americans, but was dedicated to the development of a country that would be an example to the world of the best government of the people, by the people, and for the people.

Let us look at some of the facts given in "*Kram-Full*":

"Business men, salesmanagers and advertising agencies are not fully familiar with the importance of the foreign language field. Their time is occupied constantly in developing the American market. They claim that their time is fully occupied in trying to study this market.

"They believe that it is the same market today as prevailed 50 years ago. They forget that they are living in the Twentieth Century and not in the Eighteenth Century. They forget the fact that each year has produced fresh evidence of the increasing importance of the foreigners' trade and commerce in the United States.

"They forget the fact that every important city in the United States shows at least half of the population to be of foreign-born people. They forget the fact that in New York City, Philadelphia, Chicago, Boston, St. Louis, and many other big metropolitan cities, more than 60 per cent of the retail merchants are foreign born and foreign speaking.

"They forget the fact that in the wholesale trade these people have built up a reputation and a record second to none. The small merchant of 15 or 20 years ago today is the wholesaler. The laborer of 20 years ago is the contractor. He owns his own home, his own automobile and enjoys the same comfort as his English brethen.

"Who builds the subways? Who mines the coal? Who tills the soil? Who fires the engine? It is the foreign speaking and reading citizen. But the American business men, sales managers and advertising agents have forgotten all this.

Their Buying Power

"Many large manufacturers in the United States have recognized for years the tremendous buying power of the 32,000,000 foreign language people of this country's population.

"Daily needs of 32,000,000—averaging five members to a family—are large and varied to be sure. Here's a tremendous market for any product, food, furniture, household needs, drugs, clothes, radios or autos. How much of this business comes to you now?

"Now, these millions are willing to work for the things they want and constitute, therefore, an unusual buying market with an unusual buying appetite. They not only have the desire for many things, but in most cases it is not a general desire but a specific one. For instance, they know they want an automobile, just as soon as the whole family, furiously working and saving, can afford one. But while at first it is merely a general desire for an automobile, soon the desire commences to take shape and the question then is: 'What automobile?'

Thrifty People

"Manufacturers who understand the value of the foreign language consumer, invariably go after his trade. They know, as a matter of fact, that the foreigner is active, industrious and thrifty. They know that he represents real purchasing power, a source of income to his business which, if properly cultivated, will add dividends to his business.

"No other city in the world has such a conglomeration of different nationalities as are found in the Metropolitan area of New York City. For instance, there are Albanians, Armenians, Assyrians, Bohemians, Bulgarians, Chinese, Croatians, Danes, Dutch, Esthonians, Finns, French, French Canadians, Germans, Greeks, Jews, Ladino Jews, Hungarians, Italians, Japanese, Letts, Lithuanians, Norwegians, Poles, Portuguese, Roumanians, Carpatho-Russians, Russians, Serbians, Slovaks, Slovenians, Syrians, Swedes, Spaniards, Ukrainians, and several other minor nationalities from various corners of the earth.

"New York City contains approximately one-twentieth of the total population of the United States and about one-sixth of the total foreign population.

"Of the different nationalities

FOLKS FORGET they need files

That's why this new Heller "File Salesman" is bound to bring you a neat profit

SMALL CHANGE Buys Files For Every Home Need PURCHASE 2 or 3

"JOHN HOUSEHOLDER" forgets files until he wants to use one. Then he growls because he never thinks to buy... and probably borrows or gets along with what he has, rather than make a special trip to your store.

There you have a picture of 9 out of 10 people who trade with you. And, there you have a ready-made opportunity to sell a good many files . . . make a neat extra profit . . . by putting the new Heller "Big Five" Assortment of NUCUT Files on your counter or table where folks will see it.

IT REMINDS . . . AND SELLS!

This new Assortment has no equal as an attention-getter . . . it is printed in red and blue colors, on extra heavy stock. It's a real salesman, too, not just a counter box or card of files. Individual Cellophane wrapping on every file invites inspection, as well as prevents damage from handling and rubbing.

It "talks" . . . tells the sound reasons why the revolutionary Heller NUCUT Files are a better buy . . . tells the type, size, price. Then, it points out that—"Small Change Buys The Files You Need."

Mechanics, as well as handymen, respond to this display. It will pay you a high rent for a little $9\frac{1}{2}$" x $13\frac{3}{4}$" space on your counter. Order a Heller "Big Five" Assortment from our local jobber, now.

HELLER BROTHERS COMPANY
NEWARK, N. J. • GOOD TOOLS SINCE 1836
Plants at Newark, N. J., and Newcomerstown, Ohio

NO LEFT-OVERS!

You get 5 dozen NUCUT Files, all big sellers . . . 12—6" Mill Bastard, 12—8" Mill Bastard, 12—10" Mill Bastard, 12—6" Slim Taper, 12—6" Extra Slim Taper.

A SMALL INVESTMENT PAYS YOU A REAL PROFIT

HELLER NUCUT "WAVY TEETH" FILES

PATENT No. 2027039

that live in New York City, there are eight racial groups that numerically outnumber all the others. The Jewish people are represented with over 2,000,000; the Italians, 1,500,000; the Germans, 700,000; the Poles, 460,000; Hungarians, 175,000; Czechoslovaks, 100,000; Russians, 125,000; and Spanish 125,000.

"The Jewish City of New York is larger than the City of Philadelphia. The Italian City of New York is as large as the City of Detroit. The German City of New York is about as large as Boston. The Polish City of New York is as large as Washington, D. C. The Hungarian City of New York is as large as Youngstown, Ohio. The Czechoslovak City of New York is as large as Utica, and the Russian City of New York as well as the Spanish City of New York is as large as Albany, N. Y. And in all of these American cities as Chicago, Philadelphia, Boston, etc., the foreign population is from 40 to 70 per cent of its population.

"We, in this country, who have something to sell which the 30,000,000 can and should buy, may well put ourselves in the other man's place and realize that we will get farther when we can talk to him in his own language—then we can shout loudly—can make ourselves understood—can make him appreciate the worth of what we have and get his business.

Large Foreign Groups

"Which are the largest foreign language groups in the United States? The German group with over 6,000,000 people; the Jewish group with over 5,000,000; the Italian with 5,000,000 and the Polish with 4,000,000. These four groups number 60 per cent of the total foreign population in the United States.

"How many foreign language newspapers are there published in the United States? About 1000 newspapers, consisting of 150 dailies and 850 weeklies, semi-weeklies and monthlies.

"In Cassville, near Lakewood, New Jersey, one well known Russian Mutual Aid Society acquired a large farm, where a modern club house was built with other buildings on the order of hotels or boarding houses. Here many Russians spend their summer vacation on the shore of a picturesque lake surrounded by pine trees.

"The efficiency of German-trained workmen is proverbial. Philadelphia's vast industrial field has attracted them for generations and offered the highest rate of pay for their services. In the mechanical arts and trades, commercial chemistry, engineering, and designing, they excel. Many large plants are completely operated by German personnel.

"The Jewish population of Cleveland represents almost one-eighth of the city's population.

A Cosmopolitan City

"There is no city in the world which has such a conglomeration of different nationalities as New York City. One-nineteenth of the total population of the United States and approximately one-sixth of the foreign born population of this country is located here.

"An Italian in Philadelphia started his fortune through the sale of lemons. Another Italian in New York City started his million in selling oranges. The Italians in Greater New York own over $150,000,000 worth of real estate property.

"In the most congested part of the United States, which includes the states of Ohio, Indiana, Illinois, Michigan and Wisconsin, the foreign born population amounts close to eight and a half million, or practically 32½ per cent of the total population of these states.

"There are now in the state of Iowa, 15,000 German foreign born farmers and over 40,000, or one-fifth of all the farmers of the state are either foreign born or of German extraction.

"There are approximately 225,000 Jews in Newark, N. J., and suburbs, and approximately 1200 organizations and 125 synagogues.

"One of the leading foreign elements in the city of Bridgeport is the Hungarians. They number close to 15,000 and form an important group in the industrial field there."

I really don't think that we one hundred percenters should get peevish when the Italians, for instance, celebrate some of their national holidays, or when the Irish start out to parade on Fifth Avenue and delay our taxicabs, or when the Germans indulge in their special kind of salute. Of course I do know that sometimes all of these things do annoy us, but, on the other hand, I remember when I myself traveled abroad, landed in some foreign country and attended a fourth of July dinner, I was just ready to burst wide open with Americanism. I remember in Paris on one occasion at a banquet of the Americans, Chauncey Depew made the leading address. How we did cheer! How we did talk about God's country. It all was fine and we were super high-grade Americans because we were in a foreign country. I remember in Depew's speech he told the story about Luther Burbank developing the square pea, so one hundred per cent Americans could eat them with a knife without them rolling off.

Steaming down the Danube one day, from Vienna to Budapest, I thought it might please the orchestra if I assumed a hands-across-the-sea attitude, so I asked them to play "The Beautiful Blue Danube." There was a consultation among them, and then the leader came over to me and said they had never heard of it.

Old Spanish Custom

A South American merchant, a Spaniard, wrote asking us to employ his son so he could learn American business methods. I wrote telling him to send his son. Then along came a letter asking me to take the son into my own home and have him board with me so I could keep an eye on him when he was in New York. This may appear odd, unless you are familiar with Spanish customs. It is a very common thing in Spanish countries for a number of employees to live with the head of the business.

There is a movement under way unofficially backed by the United States government to invite foreigners to send young people over here to visit the United States, to

(*Continued on page* 62)

Increase your profits with J&L STEEL

"Hog-tight, man-high, bull-strong . . . that's J&L Woven Wire Fence."
"Yes, sir, that's just what I want"
J&L STANDARD WOVEN FENCE
Your customers like J&L Barbed Wire on the Safety-Grip Spool because its convenient handle makes it easy to carry . . . protects hands and clothes. The handles fold flat for stacking.
JONES & LAUGHLIN STEEL CORP'N
100 LBS. WIRE NAILS
BRIGHT
J&L
COMMON
10
PITTSBURGH U.S.A.

THAT'S just what your customers want and that's the reason they buy and reorder J&L Woven Wire Fence. With J&L Fence your sales and profits climb.

Jones & Laughlin Woven Wire Fence has great strength . . . it is made of especially selected steel. Its thorough galvanized coating protects it against rusting . . . to give many years of service.

The strength, durability and attractive appearance of Jones & Laughlin Fence and the praise of those who use it make it a fast-moving item.

Stock J&L Woven Wire Fence, J&L Barbed Wire, J&L Nails and Staples . . . watch your profits grow.

"Low Cost Protection for Stock and Crops" will help you sell more J&L Woven Wire Fence and J&L Barbed Wire. A sufficient quantity of these books, carrying your imprint, will be supplied through your jobber for distribution to your customers.

JONES & LAUGHLIN STEEL CORPORATION

PITTSBURGH, PENNSYLVANIA

MAKERS OF HIGH QUALITY IRON AND STEEL PRODUCTS SINCE 1850

WHATS NEW FOR RETAIL HARDWARE STORES

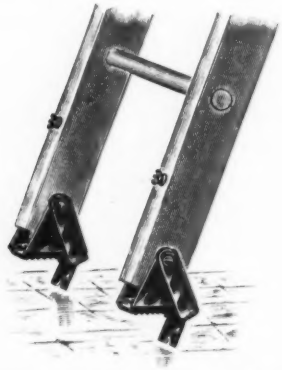
New and Improved Merchandise—Display Helps—Sales Literature—Window Trims—New Packages—New Colors—Catalogs

Copper Spotlite

This 22K copper Winchester Hi-Power Copper Spotlite has a handsomely designed case; octagon non-

rolling lens ring, recessed for lens protection; bulb shock absorber integral with case; recessed base cap with folding hanger. Removal of lens and reflector provides candle-light. Switch is a new style positive three-position safety lock type. This number is a two-cell 500-foot spotlight. It is offered in a combination deal. *Winchester Repeating Arms Co.*, New Haven, Conn.

Safe-T-Grip Ladder Shoes



Maker states it has a safety hump to utilize the normal thrust of the ladder rail to depress the forward part of the tread thereby counteracting the natural tendency for the ladder foot to "kick" out. A special claw for ice and other difficult surfaces, when not in use, locks securely out of the way where it cannot injure anyone. Styles: abrasive rubber tread with claw lists at $3.00 per pair, with no claw, lists at $2.00 per pair; metal abrasive tread with claw lists at $6.00 per pair, and with no claw, lists at $5.00 per pair. *The Safe-T-Grip Ladder Shoe Co.*, 284 Montgomery St., Bloomfield, N. J.

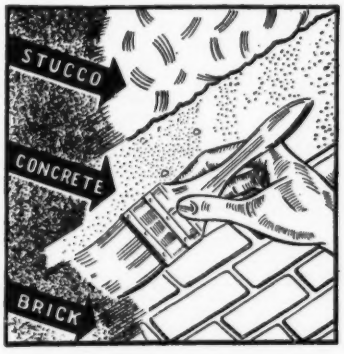
Metal Folding Chairs

Built of strong steel channels and comes in a variety of colors and upholstered finishes. Model 901 has a three-ply 5/16 in. birch casein glued veneer seat of the removable type fin-

ished with stained walnut lacquer finish. No. 902 has a deep formed 20-gage steel saddle seat welded to seat frame. No. 903 has a Spanish Leatherette upholstered seat with approximately one inch cotton padding. Upholstering is stapled to three-ply casein glued veneer seat. No. 904 has Spanish Leatherette upholstered back and Spanish Leatherette upholstered seat with one inch cotton padding. No. 905 has a wood slat seat completely encased in metal frame and finished in natural lacquer. *The Stewart Iron Works Co.*, Cincinnati, Ohio.

For Waterproofing Masonry

Calbar Mason-Seal compound is said to waterproof any type of masonry. It is a weather seal of asbestos, treated



oils, and color pigments, of heavier than paint consistency. It is prepared in 10 colors, making it unnecessary to paint over Mason-Seal once it has been applied. Mason-Seal is applied with a brush and forms a coating 1/16 in. thick that will cover cracks up to 1/16 inch in width. Packed in all sizes for home owners or commercial uses. *Calbar Paint & Varnish Co.*, 2620 N. Martha St., Philadelphia, Pa.

Helyx Floor Screw Nails

Maker states they drive like a nail and turn and hold like a screw; are tempered and will not bend if properly driven. They require no drilling and are suitable for laying maple or oak hardwood flooring, Masonite Presdwood or other hard-board. *The Hillwood Mfg. Co.*, 21700 St. Clair Ave., Cleveland, Ohio.

3 BIG SPECIALS for YOUR Jan. Feb. Promotions

SILEX JR. ELECTRIC TABLE MODEL
6 or 8 cup electric model with
Anyheet Control and **FREE tray**
$6.95 VALUE FOR $5.95 (in black)
$7.40 VALUE FOR $6.25 (in red)

SILEX JR. ELECTRIC TABLE MODEL
6 or 8 cup with FREE tray
$5.45 VALUE FOR $4.95 (in black)
$5.90 VALUE FOR $5.25 (in red)

SILEX JR. EVERYDAY KITCHEN MODEL
6 or 8 cup with FREE tray
$3.45 VALUE FOR $2.95 (in black)
$3.90 VALUE FOR $3.25 (in red)

See Our Display
Room 661A—Stevens Hotel
Chicago, Jan. 9th to 15th

Place Your Order NOW

THESE OFFERS EXPIRE FEBRUARY 28, 1938

Display Boxes

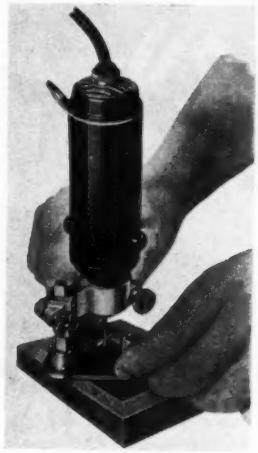
Envelope Stuffers

Dealer Mats

Genuine SILEX
GLASS COFFEE MAKER
The Silex Co Hartford, Conn

Moto-Tool Accessories

Model 2 Moto-Tool may now be equipped with stand, the use of which leaves both hands free to manipulate the job. A turn of the wing nut loosens the easily-adjusted ball clamp on the stand and the Moto-Tool can be set at any desired angle or position. Stand is of heavy cast iron with aluminum clamp. Also available for the Model 2 Moto-Tool is a shaping table which may be firmly clamped to the front end of the Moto-Tool. The table can be raised and lowered to accommodate the desired height in relation to the tool in the chuck. The table makes it possible to rout and grind out flat pieces to any desired shape by guiding them over the table against the tool. Retail selling price of the stand only is $4.50; of the shaping table only, $2.50; of both stand and table, $7.00. *Dremel Mfg. Co.*, Racine, Wis.

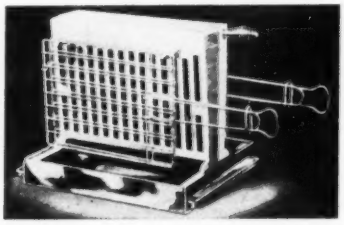


Floor Maintenance Machine

Atlas Floormaster 12 polishes, waxes, sands, scrubs, steel-wools, dry cleans, and buffs every type of floor—wood, concrete, tile, linoleum, rubber, cork, terazzo, and asphalt. Has brush spread of 12 inches. Machine is easily guided by handle. During operation, the small wheels are raised so that entire weight of the machine is on the brush. It is quiet in operation. Motor is air-cooled and enclosed for protection against dust, dirt, and water. Automatic switch turns off current when hand is removed. Motor—A.C. or D.C., ¼ h.p.; r.p.m. of brush, 185. List price $115.00, complete with polishing or scrubbing brush, 40 feet of rubber cable and non-breakable rubber base plug. *Atlas Floor Surfacing Machinery Corp.*, 218 E. 34th St., New York City.

Broilmaster Grate

Made in single or multiple units, each consisting of a vertical cast iron grille using pressed charcoal. A cast iron cover retains and reflects the heat to the sides. From horizontal arms at the top, wire grilles to hold the meat, are suspended. Grate is mounted on chromium plated base with a pan to collect dripping grease and ashes. Each unit is portable and a bail is furnished with which to move it if desired. Use of Broilmaster eliminates need of fats for frying. It makes toast and toasts sandwiches. *The Majestic Co.*, Huntington, Ind.



Home Craftsman's Catalog

No. 10—gives useful information and descriptions of hard to find materials, hardware, and tools. *Craftsman Wood Service Co.*, 2700 Mary St., Chicago, Ill.

Automobile Locks

A bulletin on automobile locks shows various designs of door locks for a number of different automobile makes, also compartment locks, ignition cylinders, tire locks, trunk locks, etc., and other supplies for working on or replacing automobile locks of all types. *D. Silver Hardware Co., Inc.*, 19 Essex St., New York City.

Automatic Hand Trap Folder

Tells the rules on "How To Play Scoot," the new hand trap game. The Remington automatic hand trap is easy to carry, inexpensive and simple to operate. It is suited for practice shooting or instruction in regular skeet, trap, or field shooting, and will throw a target 65 yards with little effort. *Remington Arms Co., Inc.*, Bridgeport, Conn.

Low Priced Fluid Duplicator

Model SW is described in an illustrated folder. Priced at $125, f.o.b. factory, this new machine is said to incorporate all the essential tested and proven features of higher priced machines. *Duplicating Machines Division, Standard Mailing Machines Co.*, Everett, Mass.

Kerosene Mantle Lamp

This non-pressure, wick-type, kerosene (coal oil) mantle lamp is said to operate 50 hours on a gallon of fuel and develop 100 to 110 foot candles on sight meter, held on a level with one foot from the center of the mantle. Packed in packages of dozens, fourth dozens and individual cartons, suitable for reshipping without repacking. Suggested retail selling price, complete with parchment type shade, is $5.95. Dealer's cost: in dozen lots, $3.95 each; in fourth dozen package, $4.05 each, and in individual package, $4.35 each. *Farmour Mfg. Co., Inc.*, 2856 Arsenal St., St. Louis, Mo.

Canned Roller Skates

The latest model Kingston ball-bearing roller skates are being packaged in a fibre can. Container is tamper and

dust-proof. The attractive black, white, and red containers, designed by the American Can Co., 230 Park Ave., New York City, give the skates added shelf appeal and they are easily stacked and inventoried. *Kingston Products Corp.*, Kokomo, Ind.

Home Workshop Items

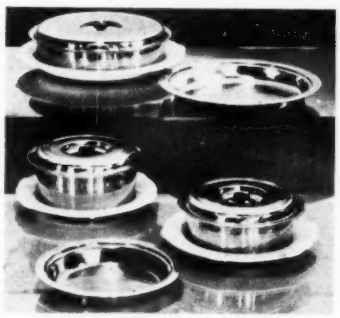
Spindle shaper with geared-motor drive has no belts and pulleys, and is said to have no belt friction, slippage, no non-metallic parts to stretch, wear, adjust or replace, fewer bearings, and nothing to catch the operator's clothing or hands. Spindle is turned at 7600 r.p.m. by precision gears built into the motor as an integral part. Motor and gear shaft are mounted on ball bearings. Motor and arbor unit is movable up and down a seamless steel 2¾ in. column for a distance of six inches, movement being controlled by a screw and bevel gear mechanism with micromatic adjustment. Maker recommends this machine for shaping, as well as for sanding, tenoning, dadoing, reeding, fluting, surface grinding, panel carving, making lock corners (for boxes and drawers) and other operations. Also new is a jig saw to which the principle of the built-in motor has been applied. Another feature is the direct drive. Belts and pulleys have been eliminated to avoid slippage and friction. All the mechanism of the jig saw is completely housed. Fingertip speed control enables the operator to shift the speeds easily. Made in two models with two-speed and single speed motors.—*Walker-Turner Co.*, Plainfield, N. J.

F. D. Kees Catalog

No. H-16—illustrates and describes builders' hardware items, hardware specialties, and garden tools. *F. D. Kees Mfg. Co.*, Beatrice, Neb.

Stainless Steel Utensils

A line of cooking-serving dishes made of Enduro stainless steel has been announced. They are said to have a brilliant satin finish that gleams like a mirror and shows no machine marks. These "Servet" Enduro stainless steel dishes enable the housewife to cook and serve in the same dish, simply placing the hot dish on a heat-proof plastic tray for serving on the table. Advantages claimed for these dishes are: they won't tarnish; they clean like glass; they won't chip or break; food and food stains wash off quickly with soap and hot water; using covers, and a small quantity of water, they cook with less heat, and save gas or current, and dishes retain heat longer. "Servet" dishes are made in two diameter sizes, and are shaped so that any dishes of the same size may nest. Trays and covers are interchangeable. "Home Utility



Set" consists of 11 pieces, consisting of casserole, vegetable dish and baking dish, all with covers and trays, a breakfast dish, and a meat dish. Besides being offered in a complete set, "Servet" dishes are packaged singly and trays and covers are sold separately. They sell from $2.00 each up with the set retailing for $28. *Steelsmiths, Inc.*, Meriden, Conn.

Rollfast Wheel Package

Because of the continued increase in the sales of spare roller skate wheels, the maker of Rollcast skates has devel-

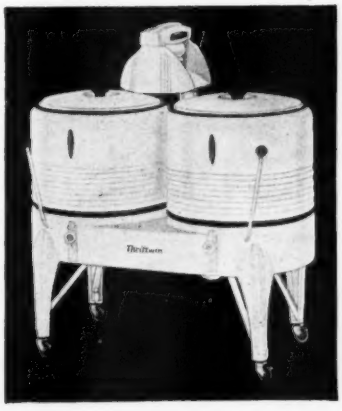
oped a point-of-sale aid for selling extra wheels. They are being packaged in an attractive two-tone blue counter display box that holds 24 wheels. The box also presents the selling feature of the wheels. *D. P. Harris Hdw. & Mfg. Co., Inc.*, 29 Warren St., New York City.

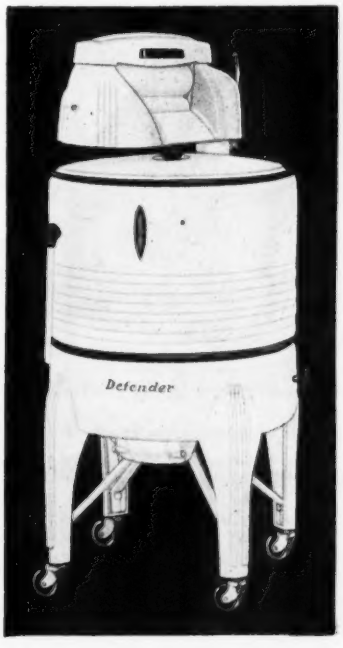
Barre Design Lock Sets

Corbin's folder on Barre design lock sets points out the suitability of this style on buildings where the effect of modern treatment must be achieved at low cost. This new pattern is made in wrought bronze and wrought steel and furnished in sets for store doors, entrance doors, vestibule, interior, bathroom, and closet doors, both with glass and metal knobs. This folder is available in quantities with dealer's name and address imprint. *P. & F. Corbin*, New Britain, Conn.

Dexter "White" Models

A Thriftwin Twin Tub and Defender Single Tub are being offered in gleaming white with black trim. They have shining white vitreous enamel tubs and white chassis. Maker states the Dexter-Built wringer has been outstanding in its appeal. Transmission is precision-built "full jeweled" of the automotive type. Another feature is the sealed-in forced feed oiling system. *The Dexter Co.*, Fairfield, Iowa.





NICHOLSON FILES

THIS

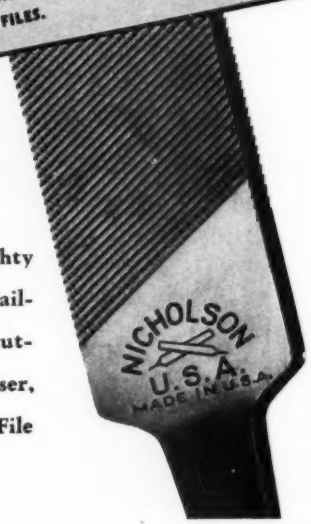
NEW TOOTH CONSTRUCTION MADE TO A NEW PRINCIPLE . . . CONTROLLED SERRATIONS* . . . MEANS 30 UNITS OF WORK DONE INSTEAD OF 20.

+ THIS

NATIONAL ADVERTISING REACHING MILLIONS OF FILE BUYERS, DIRECTING THEM TO HARDWARE STORES TO BUY CELLOPHANE WRAPPED FILES.

+ THIS

"66 RETAIL FILE UNIT" . . . IN BRILLIANT COLORS . . . SPEEDING UP FILE SALES . . . THE MOST MODERN MERCHANDISING UNIT EVER DESIGNED FOR FILES.



* PATENTED

These combine to make Nicholson Files a mighty attractive proposition from the hardware retailer's viewpoint:—thoroughly advertised, fast cutting; a new, unique, fast-moving merchandiser, and a great name for quality. Nicholson File Company, Providence, R. I., U. S. A.

A FILE FOR EVERY PURPOSE

Legally

Store Name Protection

IS a person always permitted by law to use his own name in the operation of a retail or other business? Apparently not, for, according to a recent New York decision, there are certain instances in which an individual will be prohibited from using his name in connection with his business.

In the New York case a retail merchant had been operating a store for the sale of certain kinds of merchandise for quite some time. Another individual of the same name opened a store of the same kind near the first store. Thus there were two stores of the same kind operating under the same name in the same neighborhood.

The owner of the first store took legal action to restrain the owner of the second store from operating under the same name, although that name was actually the true name of the owner of the second store.

The court agreed with the owner of the first store, saying:

"The operator of the second store is using his name in the location selected by him in unfair competition with the owner of the first store and in a manner calculated to mislead the public. The neighborhood in which the stores of both are located has an unusual attraction for retail trade in the business in which the parties are engaged."

Inasmuch as this case occurred in New York City, the court concluded that justice would be served by prohibiting the owner of the second store from engaging in that particular line of business under the same name in the locality of the first store, and so ordered. In a smaller town, perhaps, the court might prohibit the owner of the second store from engaging in business under these circumstances in the same town.

The point of law involved here is that a person cannot engage in competition with an established merchant and use the same name, even though it be his own, in a manner calculated to mislead the public. This means that a merchant who has established a business under his own name will be protected by the law from competition of that character.

Speaking

Liability Insurance and Fidelity Bonds

MERCHANTS holding liability insurance policies covering accidents involving their trucks and other motor vehicles will do well to read those policies carefully to make sure just what the policies require with respect to notifying the insurance company in the event of an accident.

"A provision for 'immediate notice' contained in an insurance policy is not to be disregarded," says the Supreme Court of Washington in a recent case. "Its obvious purpose is to enable the insurance company to inform itself promptly concerning a given accident so that it may investigate the circumstances, prepare for defense, if necessary, and to be advised whether it is prudent to settle any claim arising therefrom. The term 'immediate notice,' however, is to be given a reasonable application under the facts and circumstances of each particular case."

Where such an insurance policy requires immediate notice of an accident, delay in notifying the insurance company might cause a forfeiture of the protection of the policy.

A somewhat similar situation arises where a merchant holds a fidelity bond protecting him against the dishonesty of employees handling money. Usually these bonds require that notice of the dishonest act be given the bonding company within a specified time. This question of notice under a fidelity bond was raised in a recent Federal case in which the court said:

"The bond in this case provides that the bonding company be notified in writing within ten days after the discovery of the default or any dishonest act of a person covered by the bond. This does not mean that it be notified in writing within ten days after the time that dishonesty was suspected, but only after discovery of any default or any other dishonest act on the part of the person filling any position covered by the bond."

It's a wise precaution for an employer holding a fidelity bond to read carefully the provisions concerning "notice" so that he may act within the specified time in the event of any default on the part of a bonded employee.

BLACK DIAMOND FILES

THIS

NEW PRINCIPLE OF TOOTH CONSTRUCTION . . . CONTROLLED SERRATIONS* . . . MAKES IT POSSIBLE FOR 4 MEN TO DO THE WORK OF 6 WITH BLACK DIAMOND FILES . . .

+ THIS

CONSUMER ADVERTISING COVERING MARKETS WHICH HAVE AN ENORMOUSLY INCREASED PURCHASING POWER . . . AND AN IMMEDIATE NEED FOR MORE FILES . . .

+ THIS

"66 RETAIL FILE UNIT" . . . THE SELF-SERVICE DISPLAY IN BRILLIANT COLORS . . . MAKING IT EASY FOR CUSTOMER TO SELECT HIS CELLOPHANE WRAPPED FILES . . .

* PATENTED

This combination starts traffic to your store and stops it at the point of file sales . . . increases your normal volume of file sales and profits. Your wholesaler can supply you at once with the fast-selling, widely advertised, outstandingly merchandised files . . . Black Diamond. Nicholson File Company, Providence, R. I., U. S. A.

SINCE 1863 THE STANDARD OF QUALITY

News of Retailers, Jobbers and Manufacturers and Salesmen

READ IT IN HARDWARE

NEWS OF

CRUISE TO MANAGE CORBIN'S NEW YORK OFFICE; SHELTON RETIRES AFTER 40 YEARS

R. M. (Bob) Cruise has been appointed manager of the New York office, 94-98 Lafayette St., for the Corbin Cabinet Lock Co.

R. M. CRUISE

and the Corbin Screw Corp., New Britain, Conn. Mr. Cruise succeeds J. T. Shelton, who is retiring after 40 years of active service in the interests of the companies.

Mr. Cruise has been associated with the Corbin organization in various capacities since 1912. In

J. T. SHELTON

sales work he has covered the eastern United States, Canada and Nova Scotia. After 16 years as direct representative in Cleveland for the Corbin Cabinet Lock Co., Mr. Cruise in 1936 was appointed director of sales in the New York territory for both the cabinet lock and screw divisions.

Mr. Shelton began his hardware career as a stock clerk for P. & F. Corbin and later became a salesman for shelf hardware and contract work. In January, 1913, he was transferred to the Corbin Screw Corp., becoming manager for that division in March, 1924. In 1936 Mr. Shelton was given the additional duties of manager of the Corbin Cabinet Lock Co. and its Tavern division.

MODERN KITCHEN BUREAU LAUNCHES BIG CAMPAIGN

The Modern Kitchen Bureau, 420 Lexington Ave., New York City, has announced plans to put into effect a $350,000 comprehensive sales and advertising program. The power of the campaign will be placed behind electric ranges, electric refrigerators, and electric water heaters. In addition, during 1938, the Bureau will continue its promotion of the modern electric kitchen on an enlarged scale.

ALABASTINE CO. ADDS TO SALES ORGANIZATION

To service its rapidly growing list of Alabastine oil paint exclusive agencies in Michigan, the Alabastine Co. of Grand Rapids, that state, has appointed W. B. Mull of Grand Rapids as representative in western Michigan. The company has also appointed the Tracy Wells Co. of Columbus, Ohio, as distributors for its complete line of oil paints, enamels, and varnishes.

CARSTENS AGAIN HEADS HARDWARE SQUARE CLUB

George Carstens, Topping Bros., New York City, was re-elected president of the Hardware Square Club, No. 675, at the annual meeting and Christmas party held Dec. 21 at the Masonic Temple, 71 W. 23rd St., New York City. Harry Kornrumph, Long Island Hardware Co., Long Island City, and Roy Fowler, Franklin Hardware Co., New York City, are first and second vice-presidents, respectively. Other officers are: Ralph S. Allen, Diamond Expansion Bolt Co., secretary; Albert Westphal, Corbin Screw Corp. and Corbin Cabinet Lock Co., treasurer; John H. Tracy, Rawplug Co., Inc., financial secretary; Frederick Berg, Francis Keil & Son, New York City, sentinel, and William Heinze, Greenfield Tap & Die Co., trustee.

A Christmas dinner was served prior to the business meeting.

TROUT HEADS SALES FOR ROLLS RAZOR, INC.

Edwin H. Schiffer, president, Rolls Razor, Inc., 305 East 45th St., New York City, announces the appointment of Albert K. Trout as director of sales, effective Dec. 13, 1937. Rolls Razor, Inc., is the sole United States distributor of the English made Rolls Razor which has been distributed exclusively through wholesale hardware, drug, and jewelry channels, and will continue to be sold on that basis.

Mr. Trout is well known in hardware circles. He had his early sales training with the National Cash Register Co., following which he was successively: sales manager, H. C. White Co., North Bennington, Vt.; operator of the A. K. Trout Co., a manufacturers' sales agency; general sales manager, A. W. Faber Pencil Co., Stein, Germany and Newark, N. J., and most recently general sales manager for Holland-Rantos Co., Inc., New York City.

ALBERT K. TROUT

HARTE APPOINTED TO REPUBLICAN COMMITTEE

Richard Harte, president, Ames Baldwin Wyoming Co., Parkersburg, W. Va., has accepted an appointment as a member of the Program Committee of the Republican party, appointed by the executive committee of the organization.

RICHARD HARTE

CROSLEY APPOINTS ALABAMA DISTRIBUTOR

The Steel City Appliance Co., with headquarters in Birmingham, Ala., has been appointed distributors for all products of the Crosley Radio Corp., Cincinnati, Ohio, in the state of Alabama. Robert F. Hall is president and active manager of the appliance concern. Herndon Thomas is vice-president in charge of sales. Mr. Thomas has been active in the distribution of Crosley products for many years, being formerly in charge of the appliance department of the Beck & Gregg Hardware Co., Atlanta, Ga.

THE McKAY CO. APPOINTS SALES REPRESENTATIVES

The McKay Co., Pittsburgh, Pa., has appointed as its representatives in the southern territory, William H. Reid, southern district sales manager, James C. Hendrickson, and Benton C. Wood. The firm was formerly represented in that territory by the Sand & Hulfish organization.

THE TRADE

IT BECOMES PART OF THE COMMON KNOWLEDGE OF THE HARDWARE TRADE THROUGHOUT THE COUNTRY WHEN PUBLISHED IN HARDWARE AGE

A. P. CHESTER HEADS COOKING & HEATING GROUP; WAGES AND HOURS BILL OPPOSED.

The fifth annual convention of The Institute of Cooking and Heating Appliance Manufacturers was held at the Netherland Plaza Hotel, Cincinnati, recently. An attendance of over 250, largest in the Institute's history, represented 117 of the industry's leading manufacturers and supply organizations. Mr. Lewis Moore, Jr., of The Kalamazoo Stove Co. and president of the institute, was chairman of the meetings. A. P. Chester, the vice-president of Globe-American Corporation, Kokomo, Ind., was chairman of the program committee.

A. P. CHESTER

In the election of officers Mr. Chester was named president; C. Ackerson, vice-president of Agricola Furnace Co., Gadsden, Ala., vice-president; and Garvin M. Brown, president of Indianapolis Stove Co., was made secretary.

The Institute unanimously adopted resolutions against the proposed wages and hours legislation in Congress; it favored the balancing of governmental budgets—federal, state and local and the perpetuation of the fundamental principles of the American system of government; an appeal to the Federal Government for the immediate repeal of the undistributed earnings tax and against any and all compromising amendments which have been publicized to date. Another resolution calls upon Congress for amendments to the Wagner Labor Relations Act.

Samuel Dunkel is the managing director of the Institute with headquarters in Washington, D. C.

MICRO-LITE MOVES TO NEW OFFICES

Micro-Lite Co., Inc., New York City, manufacturer of Micro-Lite pocket flashlights, has moved to new and larger quarters at 45 W. 25th St. that city. In its present location, the company's factory, showrooms, and sales offices are on one large floor of 10,000 square feet.

WILSON OLIVER WRITES FOR MAGAZINE

Wilson Oliver, vice-president of Oliver Brothers, Inc., 421 Canal St., New York City, has assumed added duties as contributing editor of *Commerce and Finance*, a fortnightly magazine for business men published at 95 Broad St., New York City. Mr. Wilson is the author of Oliver Brothers' Comment Letter.

WILSON OLIVER

STRONGHOLD PLUG BEING MADE IN UNITED STATES

The stronghold plug which was formerly imported from Switzerland is now being manufactured in this country under a Patent License from the Rawplug Co., Inc., by the Palatine Industrial Co., Inc., 111 Fifth Ave., New York City. This domestic plug has been chemically improved and it is said now to be immune from all injurious influences

G-E CO. ANNOUNCES EXECUTIVE CHANGES

Charles E. Wilson, Bridgeport, Conn., vice-president in charge of the appliance and merchandise department of the General Electric Co., Schenectady, N. Y., since 1930, has been elected executive vice-president of the company, a new position. Philip D. Reed has been elected assistant to the president, Gerard Swope.

Mr. Wilson has been with General Electric and one of its constituent companies, Sprague Electric, since 1899. Beginning as an office boy, he has served in practically every function of the business and in many capacities. He began his close association with the appliance business when he was appointed assistant manager of General Electric's Bridgeport works. In 1930 he was appointed manager of the merchandise department in charge of engineering, manufacturing, and sales, and subsequently was elected a vice-president of the company. He was one of the original members of the newly formed appliance sales committee of the company. In 1935 he was assigned the additional responsibility of directing all appliance activities including refrigerators, electric ranges, other kitchen appliances, as well as air conditioning equipment.

CHARLES E. WILSON

RENOWN PROMOTES R. H. LITTLE

R. H. Little, who has been associated with the Renown Stove Co., Owosso, Mich., in its production service departments, has been appointed territory manager for eastern Ohio. Mr. Little will have charge of territory agencies and will operate out of the newly established Massillon, Ohio, sales and service headquarters.

R. H. LITTLE

BROOKLYN ASSOCIATION TO HAVE TRADE SHOW

The Brooklyn Hardware Association will hold a manufacturer's hardware show on Thursday, Jan. 13, 1938, in the Johnston Bldg., Nevins and Fulton Sts., Brooklyn, N. Y., from 6 to 10 P.M. To date 30 manufacturers have made reservations for exhibit space. Further particulars and free admission tickets are available from Ralph S. Allen, secretary, Brooklyn Hardware Association, c/o Diamond Expansion Bolt Co., 48 W. Broadway, New York City.

SALESMAN RETIRES AFTER 60 YEARS ON ROAD

Mr. Seelman, salesman for the American Sponge & Chamois Co., 17 Ann St., New York City, is retiring from active business at the age of 92. Mr. Seelman has spent 60 years on the road selling the sponge and chamois trade.

G-E PROMOTES J. W. DUNBAR

J. W. Dunbar, formerly in charge of magazine advertising for the Incandescent Lamp Department of the General Electric

J. W. DUNBAR

Co. at Nela Park, Cleveland, Ohio, has been appointed assistant to C. H. Lang, advertising manager of the company. Mr. Dunbar will make his headquarters at the General Electric Building, 570 Lexington Ave., New York City.

Following a year of service in the World War, Mr. Dunbar joined the sales promotion department of General Electric's Incandescent Lamp Department. His first assignment was writing a book on the participation of that department and its people in the World War. Following this was the editorship of the "Stimulator Magazine," a house organ for General Electric lamp dealers and the forerunner of the "Magazine of Light," for which he was the first commercial editor.

On the consolidation of the Edison and National Lamp Works in 1930, Mr. Dunbar took charge of the advertising section of the sales promotion department.

BOOSTERS ENTERTAIN 200 AT XMAS PARTY

More than 200 members and friends enjoyed themselves immensely at the Christmas party given by The Hardware Boosters Dec. 18 in Springer's Restaurant, New York City. Following a turkey dinner, there was a general distribution of hardware souvenirs donated by manufacturer friends of the Boosters. M. E. Wyckoff, *Hardware World*, and president of the Boosters, presided.

Hardware salesmen and dealers were well represented at the party. Among the guests were Ralph Allen, Diamond Expansion Bolt Co., secretary of the Brooklyn Hardware Association; Sydney Atkinson, R. J. Atkinson, Inc., president of the Brooklyn Hardware Association; Henry F. Bond, president, Metropolitan Hardware Association; George Carstens, president, Hardware Square Club; H. H. Groschong; E. R. Masback, president, Masback Hardware Co.; David Moffat, president, The Keystoners; Saunders Norvell and William Paaschen, representing The Nutmeggers.

On the committee in charge of arrangements: E. S. Norvell, E. C. Atkins & Co., chairman; Roy C. Schmidt, Stanley Tools, vice-chairman; Charles Pincus, The Stanley Works, and C. J. Heale, editor, HARDWARE AGE.

EXHIBITORS COUNCIL ELECTS OFFICERS

At the annual directors' meeting of the Exhibitors Advisory Council, Inc., 330 W. 42nd St., New York City, the following officers were elected to serve during 1938: president, L. W. Shugg, division manager, publicity department, General Electric Co.; vice-president, S. A. Knisely, director of advertising, Republic Steel Corp.; secretary, E. A. Phoenix, assistant sales promotion manager, Johns-Manville Corp., and treasurer, R. H. DeMott, general sales manager SKF Industries, Inc.

The Council is under the administration of 12 directors chosen by ballot from prominent companies in American industry. For 1938 they are: E. J. Billings, executive assistant, The Babcock & Wilcox Co.; R. H. DeMott, general sales manager, SKF Industries, Inc.; S. A. Knisely, director of advertising, Republic Steel Corp.; C. E. Sullivan, vice-president, The Foxboro Co.; F. C. Kerns, lubricating representative, The Texas Co.; R. G. Creviston, director of advertising and sales promotion, Crane Co.; J. F. McNamara, sales manager, International Nickel Co.; C. F. Radley, publicity director, Oakite Products, Inc.; S. W. Gibb, assistant general manager of sales, The Yale & Towne Mfg. Co.; E. A. Phoenix, assistant sales promotion manager, Johns-Manville Corp.; L. W. Shugg, division manager, publicity department General Electric Co., and N. O. Wynkoop, vice-president, McGraw-Hill Publishing Co.

The Council accumulates, analyzes, and disseminates data on all types of shows and exhibitions. The organization has recently issued its third annual Show Schedule, including all important industrial, trade, commercial, professional, etc., shows and exhibitions scheduled during 1938. Copies of the volume are obtainable by non-member companies of the Council at $5.00 per copy by writing the Council.

MASBACK HARDWARE HAS AT HOME DAY

The Masback Hardware Co., 326-330 Hudson St., New York City, will hold another of its "At Home" events on Sunday, Monday, and Tuesday, Feb. 20, 21, and 22, 1938. This forthcoming Business Show and Carnival will be held in one of the company's adjoining buildings and in addition to displays created by the company, will feature many manufacturer exhibits.

JONES & LAUGHLIN MAKES NEW LINE OF CARBON STEEL PRODUCTS

A huge $25,000,000 mill in Pittsburgh, Pa., extending for half a mile along the Monongahela River, is the principal unit in the Jones & Laughlin Steel Corp's. expansion and improvement program and marks the firm's entry into an important new line of carbon steel products. With an annual capacity of three-quarters of a million tons, the mill covers 23 acres in the heart of the city. It is said to be the first continuous mill in Pittsburgh for the manufacture of wide steel strip and sheets and steel plates.

Steel from this new mill will eventually be found in automobile tops and bodies, in refrigerators, radio cabinets, kitchen ranges, washing machines, cooking utensils, and even children's toys. Some of the steel will find its way into steamships, railroad cars, steel barges, motor trucks, and airplanes. It will be found also in office furniture, bedroom suites, tables and chairs, and decorative trim in buildings. It will appear as roofing material for factories, dwellings, and farm buildings, as farm implements, garden tools and many other articles in daily use.

The entire plant is of the latest design and incorporates every approved feature for production of highest quality carbon steel in hot and cold rolled strip in coils and cut lengths, hot and cold rolled sheets, light plates, painted and galvanized roofing and siding and sheets for porcelain enameling.

CANADIAN WHOLESALER AT CENTURY MARK

Caverhill, Learmont & Co., Ltd., wholesale hardware metal firm of 451 St. Peter St., Montreal, Canada, celebrated its one

G. R. CAVERHILL

hundredth anniversary this month with a banquet in the Mount Royal Hotel. Ross H. McMaster, president of the Steel Co. of Canada, was principal speaker.

As J. & T. Caverhill, the firm started business in the town of Beauharnous in 1837. The business was moved to Montreal in 1853 and the name changed to Crathern & Caverhill. In 1885 the name was changed to its present title.

The founders, Messrs. John and Thomas Caverhill passed away in 1882. Two years later a new partnership was formed between George and Col. Frank Caverhill, sons of Thomas Caverhill, together with Messrs. J. B. Learmont and T. H. Newman. Col. Frank Caverhill died in 1889, Mr. Newman in 1910, Mr. Learmont in 1914. George Caverhill passed away in June of this year. Following his death, his son, G. Rutherfurd Caverhill, became president, carrying the business into the third generation.

The firm has two large warehouses in Montreal where shelf and heavy hardware is stocked for distribution throughout Canada.

F. C. FEISE DISTRIBUTES CHAIN LINK FENCE LINE

The F. C. Feise Co., Narberth, Philadelphia, Pa., tennis court builders, has been appointed a distributor of Pittsburgh Steel Co. chain link fence for eastern Pennsylvania territory. W. L. Browne, formerly eastern manager of hardware products sales for Cyclone Fence Co., is now associated with the F. C. Feise Co.

"But all he sez was 'CROSS Tacks.'"

"Sure. And all I suggested was a light hammer, a snow shovel, a sidewalk scraper, some weather stripping, and a good thermometer. Tacks are always a swell lead."

Sell the Tacks the Professionals use →

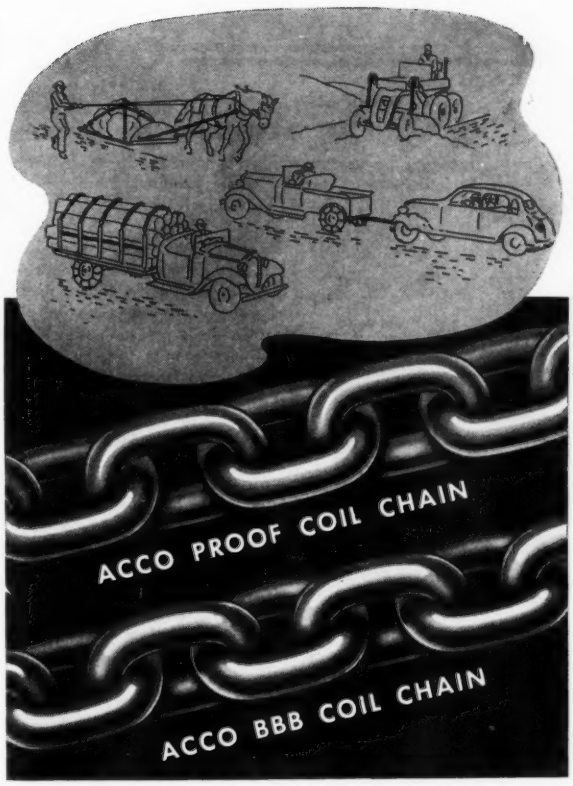
Cross *Sterilized* TACKS

EAST JAFFREY, N. H.

COPR. 1937 BY W. W. CROSS & CO. INC.

WRITE FOR DETAILS OF DISPLAY STAND OFFER

They're Uniformly Strong *Not a Cripple in a Carload*



CHAINS TO SELL *Every* MONTH

● General Purpose Chains are profitable year around items. And with ACCO Proof Coil and ACCO BBB Coil Chains you can meet any requirement for such chain.

ACCO PROOF COIL CHAIN

● This is a welded steel chain suitable for all ordinary uses which do not require high tensile and impact strength. It is made in $\frac{3}{16}$" to $1\frac{1}{2}$" sizes.

ACCO BBB COIL CHAIN

● BBB is a higher grade of welded steel chain than the Proof Coil. Made with shorter links to increase flexibility; proof tested to greater loads; each link given visual inspection to assure quality. Regularly furnished in black finish but can be supplied in galvanized finish.

Check up on your chain stock.

AMERICAN CHAIN DIVISION
AMERICAN CHAIN & CABLE COMPANY, Inc.
BRIDGEPORT, CONNECTICUT

In Business for Your Safety

BUY ACCO QUALITY

ACCO CHAINS

OBITUARY

JOHN A. HARVIN, CHAIRMAN OF PEDEN BOARD, PASSES: WAS ACTIVE HARDWARE LEADER FOR 42 YEARS

John A. Harvin, 77, chairman of the board of directors of the Peden Iron and Steel Co., Houston, Tex., passed away early this month. Mr. Harvin had been associated with his company for 42 years. So high was he held in the affection and esteem of his associates that he was known as "Uncle John," to all. His death deprives the hardware industry of a fine gentleman and one of its sterling leaders.

JOHN A. HARVIN

"Uncle John" to more than 300 employees of the company, Mr. Harvin, was the confidant of both clerks and officials, many of whom looked to him for advice in their personal affairs. It was said of him that he was a "multi-millionaire of friendships." Officials of the company say much of the success of the firm was due to his management and good judgment.

Mr. Harvin went to Houston to join the Peden company in 1895. First a salesman, he was later given complete charge of the warehouse and shipping department, where he served for seven years. He then became assistant manager. director, and finally president and manager, becoming chairman of the board of directors upon the death of E. A. Peden several years ago.

He leaves a son, Harry Harvin, Frankfort, Ky., and a host of friends throughout the United States.

HARRISON M. LIBE

Harrison M. Libe, who was with The Stanley Works of Illinois in Chicago, since 1907, died early in December at the age of 69. He began his hardware career as a sales clerk in a Philadelphia, Pa., retail hardware store. Later he joined Sargent & Co., New Haven, Conn., and traveled through the eastern states for that company for many years. He was transferred to the Chicago territory for Sargent and continued with that company until his affiliation with The Stanley Works of Illinois. Mr. Libe enjoyed a wide acquaintance among mid-western hardware dealers and was considered an authority on builders' hardware lines. His widow survives.

H. M. LIBE

ALLEN L. LASSITER

Allen Lee Lassiter, 51, for the past 23 years a traveling salesman for Doherty Hardware Co., Ltd., Baton Rouge, La., wholesale hardware distributors, passed away Dec. 17 as the result of injuries received in an automobile accident just four days before. Mr. Lassiter, who was the oldest of the company's traveling salesmen, was starting out on his regular Monday morning calls on the trade when he met with his accident. His early days as a hardwareman were spent with the Lee-Richardson Hardware Co. He was well known and well liked throughout his entire territory. His widow and a daughter survive.

CHARLES J. BUNNELL

Charles Joseph Bunnell, who had been with Sargent & Co., New Haven, Conn., since 1892, passed away on Dec. 7. He began his career with the Sargent organization in the company's New York office and after a few years was transfererd to the contract department in New York, later becoming manager of that department. He is survived by his widow, a son and a daughter.

EDWARD S. FORSYTHE

Edward S. Forsythe, 75, Colfax, Iowa, hardware dealer for the past 20 years, died Dec. 5 at his home following a heart attack suffered while he was tending the furnace. He is survived by his widow and five sons.

WILLIAM E. TAYLOR

William E. Taylor, 59, vice-president and director, American Can Co., New York City, passed away recently, following a heart attack which he suffered after addressing a district sales meeting of the company held in Chicago. He had been with the American Can Co. since its formation in 1901, starting as a mechanic at the Baltimore factory. In 1909 he became factory superintendent of the Eastport, Me., plant and in 1912 was transferred to the equipment division in New York City. In 1917 he was appointed assistant manager of the equipment division and in 1919 was made manager of that division. In 1923 he was named general manager of manufacture and in 1932 was elected vice-president in charge of manufacture.

W. E. TAYLOR

Mr. Taylor assisted in the perfection of many machines made by his company. His widow and two sons survive.

CARL BETZ

Carl Betz, 53, partner in the Standard Supply Hardware Store in McConnellsville, Ohio, passed away early in December at his home in that town. His widow survives.

WILLIAM H. CURTIN

William H. Curtin, general sales manager, Wyeth Hardware & Mfg. Co., St. Joseph, Mo., wholesale hardware distributors, passed away on Dec. 13. He was well known and well thought of in the hardware industry and had been associated with the Wyeth company since 1880. In his more than 50 years with Wyeth he had a well rounded career with the organization. Starting as stock boy he was later transferred to the office and in 1887 became a traveling representative. He had served as the organization's general sales manager since October, 1899. Mr. Curtin was a member of the Hardware Age Fifty Year Club and was a director of the Burnes National Bank of St. Joseph.

WILLIAM H. CURTIN

J. JUDSON DEAN

J. Judson Dean, founder, Cape Ann Tool Co., Pigeon Cove, Mass., died recently at his son's home in Watertown, Mass. He was active in fraternal organizations, the Rotary Club and other organizations.

JOHN L. BEACHY

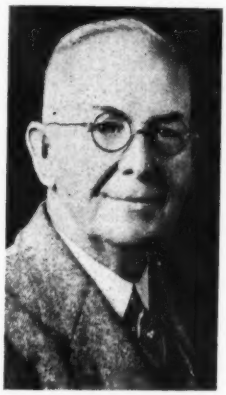
John L. Beachy, 69, president, Hartman Hardware Co., McKeesport, Pa., passed away recently at a Pittsburgh hospital. He had been affiliated with the Hartman company for about 36 years.

GEORGE H. WILSON

George H. Wilson, Allentown, Pa., who represented the J. J. Ryan Tool Co., Southington, Conn., and the Clinton Lock Co., Clinton, Iowa, passed away recently, at the age of 72. He was, at one time, connected with the Brainerd Mfg. Co., Rochester, N. Y., for a period of 22 years.

W. W. CLELAND

W. W. Cleland, 73, Knowville, Iowa, hardware dealer for the past 55 years, passed away several weeks ago at a hospital in Des Moines, Iowa. Mr. Cleland, who was a member of the HARDWARE AGE Fifty Year Club, began his hardware career in October, 1882, with the Woodruff Bros. Hardware Store, continuing with that firm for about 20 years. About 30 years ago he entered business with Frank Avery, the firm being known as Avery, Cleland Co. He is survived by his widow.



W. W. CLELAND

NAT W. CURL

Nat W. Curl, 58, secretary, Brown-Rogers-Dixson Co., Winston-Salem N. C. wholesale hardware distributors passed away recently at his home in that city after an illness of several weeks. He had lived in Winston-Salem since 1906 and had been very active in civic fraternal and church organizations in that city. He is survived by his widow.

JOBBER SALESMEN'S ASSN. FORMED IN NEW JERSEY

A new organization, the Metropolitan Wholesale Hardware Salesmen Association held its first meeting early in December at the Mayfair Building in Hillside, N. J. Plans were formulated at that meeting for the future activities of the association. Philip Strassberger, Eagle Sales Co., Newark, N. J. was the speaker of the evening. In his address he stated that "organized salesmen in the hardware industry, bring about better understanding between the hardware wholesaler and the hardware retailer."

Harry M. Jacobson, 1600 Maple Ave., Hillside, N. J., is recording secretary of the association.

CYCLE INDUSTRY FOUND 1937 A "BANNER YEAR"

From a retail sales standpoint 1937 has been a "Banner Year" for the cycle industry according to E. H. Broadwell, manager, Cycle Trades of America, Inc., Chanin Bldg., New York City. Mr. Broadwell states that, "The purchases of bicycles by dealers and distributors for 1937 have been for sales and not for stock. So, after absorbing the excess of inventory at the beginning of the year, and closing the year with a small inventory, 1937, from a retail sales point becomes the 'all time high.'

"We are entering 1938 with confidence, born of the knowledge that the interest that is being shown is not one of passing fancy but rather, based on a foundation of facts. In every quarter, bicycle clubs are being formed, races are being arranged, touring is coming in for its share of interest. It is not too much to expect eventually to see our parks and boulevards, parkways and major arteries equipped with cycle paths for the exclusive use of the bicyclist.

"The reasons why we feel we are entering an era of continued bicycle interest are endless and we again subscribe to our recent advertisement predicting that 'Every year will be more than a million bike years.'"

TOY MAKERS ASSN. ELECTS OFFICERS

Herman G. Fisher, Fisher-Price Toys, Inc., East Aurora, N. Y., was elected president of the Toy Manufacturers of the United States of America at the concluding session of the organization's annual convention in the Hotel New Yorker, New York City. He succeeds Cass Hough, of the Daisy Mfg. Co., Plymouth, Mass. Other officers elected were George A. Fox, Milton Bradley Co., vice-president; Worcester Bouck, Lioner Corp., vice-president, and James S. Lehran, Wolverine Supply and Mfg. Co., treasurer. James L. Fri is managing director and his assistant is H. D. Clarke.

FRANK & SON MOVE N. Y. OFFICES

Frank & Son, Inc., has moved its offices and showroom from 160 Fifth Ave., New York City to 470 Fourth Ave. An innovation in the showrooms is a buyers' lounge. On display at the company's quarters is kitchen furniture, unpainted furniture of all kinds, and a complete line of garden and lawn furniture of metal and wood. The Frankson Furniture Mfg. Corp., West Ossipee, N. H., has moved its offices with Frank & Son, Inc.

BOOKLET ON PILING CORRUGATED BOXES

"How to Pile Corrugated Shipping Boxes," issued by The Hinde & Dauch Paper Co., Sandusky, Ohio, is the third of a series of packaging hand books. This latest booklet tells briefly how to pile and how not to pile shipping boxes. The handbook is illustrated throughout with line drawings, and emphasizes the importance of "locking." Copies will be mailed, on request.

GEO. WORTHINGTON CO. ERECTS FIVE-STORY WAREHOUSE

The Geo. Worthington Co., 802-832 St. Clair Ave., N. W., Cleveland, Ohio, has constructed a new modern fire-proof warehouse building upon the site of a one-story building which was razed to make way for the new structure. Construction is of reinforced concrete with brick facings on the exposed walls. All floors of the five-story building have the latest approved sight-saving lighting, sanitary washrooms with outside ventilation and shower facilities in the basement washroom. Loading capacity is 300 lb. per square foot and all floors are connected with a high-speed five-ton freight elevator.

The first story is used as an addition to the company's shipping department, providing loading facilities for eight additional trucks. The loading platforms are completely under cover with electrically operated doors. The court where the company operated its restaurant tent has been enclosed, providing additional warehouse space and permitting the company to include a handsome president's office and board room on the second floor, opening off the main office. An improved lunch room, locker and washroom facilities, have also been installed.

Worthington's recently completed warehouse and one of the modern warehouse floors.

CEASE AND DESIST ORDER POSSIBLE IN A & P CASE—FINAL HEARINGS HELD

(Washington Bureau of Hardware Age)

Headed probably for the United States Supreme Court, final arguments took place in Washington, Dec. 14, in the Federal Trade Commission case against the Great Atlantic & Pacific Tea Co., charged with violation of the brokerage clause (Sec. 2c) of the Robinson-Patman Act. The ultimate outcome of the proceeding is being awaited with wide-spread interest.

The opinion that the FTC will issue a cease and desist order against A & P generally prevails. It is based on the fact that in the first of a series of decisions under the Robinson-Patman Act last July the FTC issued a cease and desist order against the Biddle Purchasing Co., also charged with violation of the brokerage clause. The Biddle case is similar to the A & P case.

In the Biddle case the FTC alleged that brokerage fees paid the company, agent of buyers, always reached the latter and in effect were actually paid by the seller. This practice, it was held, resulted in giving the buyer a discount in price and that if any services were rendered by the Biddle company to the sellers, no payment was made for such service.

The Biddle company has petitioned the United States Court of Appeals, New York, for a review of the order and is said to be prepared to take it to the Supreme Court if the lower court denies the petition.

In the A & P case the FTC charges that the grocery chain is accepting from sellers "allowances or discounts in lieu of brokerage" and that "no services whatsoever have at any time been rendered by respondent, or by any agent, representative or intermediary subject to the direct or indirect control of respondent, to, for, or on behalf of such sellers," etc.

Carruthers Ewing, attorney for the A & P, said that the inquiry resolves itself into the question of whether A & P rendered services, of which the sellers (food manufacturers) had the benefit, in connection with sales by them and purchases by A & P for resale. He declared that the acceptance of an allowance, or discount, or brokerage, or rebate "violates no law . . . of any country where the English language is spoken." Just charging a man with accepting something, in lieu of something else, it was contended, would no more charge an offense than would charging him with staying at home, in lieu of going to a movie. Hence, said Mr. Ewing, it was necessary to allege that A & P rendered no services to those sellers from whom allowances or discounts were received in lieu of brokerage.

Quoting the report of the FTC trial examiner in the case, Mr. Ewing said that the examiner found as a fact that the sellers "had the benefit of the services of one or more of the field buying agents in the employ of respondent, which services the evidence shows was of more value to the sellers than were the services of a broker in making sales of the same quantities of like merchandise." The A & P attorney also quoted the FTC counsel brief itself as conceding benefits accrued to sellers from activities of A & P agents, but "there was no bargain between the respondent and sellers with respect to those benefits or activities." Mr. Ewing urged that the FTC counsel "shy away from the words 'services rendered'" and use the words "activities of" in describing that of which the sellers were beneficiaries. He insisted, however, that whether what was done was described as "activities of" or "services rendered," the accrual of benefits to the sellers is perfectly clear. He further pointed out that the trial examiner found that the benefits were "of more value to the sellers than were the services of the broker." Mr. Ewing said he was at a loss to understand how a controversy can survive a finding and an admission by the party against whom the fact is found.

At another point Mr. Ewing said: "If the argument of the learned counsel for the Commission he followed to its logical conclusion, that is, if subsection (c) were to be treated as simply a declaration by Congress that a criminal act was committed by accepting a commission, brokerage, or other compensation, or any allowance or discount in lieu thereof, except for services rendered in connection with the sale or purchase of merchandise, then it would be a vain and void effort by Congress, for more reasons than one."

FORM FACTORY SALES AGENCY

Harry F. Halpern and Henry Wish have formed a progressive factory sales agency, Wishall Industries, with offices at 55 W. 42nd St., New York City. The telephone number is Pennsylvania 6-2116. They represent the Bre Mfg. Co., Cambridge, Mass., with a quality line of toilet seats and the National Milling & Chemical Co., Philadelphia, Pa., with a line of industrial soaps and soap powders.

Mr. Wish is well known to hardware men, having called on the trade for the past 15 years. Mr. Halpern up to Nov. 15 was president of the American Federation of Labor Hardware, Plumbing and Paint Supply Union of New York City. Their territory will include New York City and South to Washington, D. C.

BENNETT ELECTED PRES. OF BILLINGS-CHAPIN CO.

Ralph M. Bennett was recently elected president and treasurer of the Billings-Chapin Co., Cleveland, Ohio, manufacturers of paint and varnish. He succeeds the late Nathaniel D. Chapin. Mr. Bennett was, until his election as president of the company, managing director of sales and advertising. Prior to his affiliation with the Billings-Chapin organization he was with The Sherwin-Williams Co., Cleveland, paint and varnish manufacturers, for 20 years in the trade sales, railway, marine and industrial sales departments. For the last five years of his connection with Sherwin-Williams he was in charge of that company's maintenance and architectural sales.

INDUSTRIAL STREAM POLLUTION CONTROL

(Washington Bureau of Hardware Age)

Industrial stream pollution, which threatens the extinction of fish and aquatic life in every major river and even obscure streams, is being effectively combated without legislation through voluntary correction by offending industries.

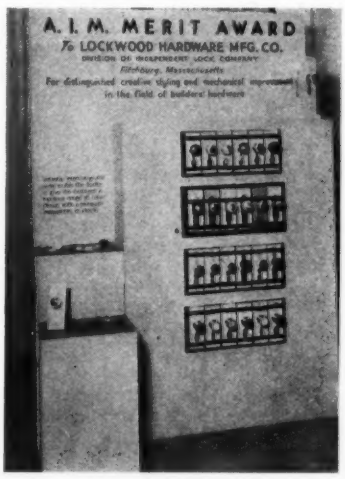
This is the substance of a report filed with the Commerce Department's Bureau of Fisheries by Dr. M. M. Ellis, who is currently heading the Bureau's pollution studies and who has developed methods of determining the extent of pollution and formulas for neutralizing and diluting industrial wastes.

Taking exception to the contention advanced by industrial spokesmen and even adherents of stream pollution legislation, the Bureau points out that most cases of stream pollution—and it has studied over 200 varieties—can be remedied.

These new methods of checking stream pollution have been developed largely through study in the central laboratory in Washington and through the aid of a fleet of motor trucks or "moving laboratories" which have visited every section of the country scrutinizing pollution conditions in both streams and lakes.

LOCKWOOD'S BUILDERS HARDWARE LINE RECEIVES MERIT CERTIFICATE

The Associated Industries of Massachusetts, a group comprising some 1,600 manufacturers in that state, awarded its Certificate of Merit to the Lockwood Hardware Mfg. Co. Fitchburg, Mass., for "distinguished creative styling and mechanical improvement." Such certificates are awarded annually for important product developments in the various fields of industry and are issued by a jury consisting of directors of the association. This jury also presented Lockwood with five specific diplomas for its development of Plastelle, Cape Cod, Unifast, Patrician, and Polyflex line of builders' hardware.



Certificate of Merit awarded the Lockwood Hardware Co. for "distinguished creative styling and mechanical improvement" in the field of builders' hardware.

Employer and Employee

(*Continued from page* 16)

ency wins. A firm is judged by its representatives and it is not the super-salesman who wins the most. Sticktuitiveness is the victor in the long run if a salesman has a good product, represents a reliable firm and has a reasonable amount of personality.

If you are the owner of a hardware store and have a son whom you think will be interested in your business give him as good an education as you can and along the lines to best fit him for the future. This may or may not call for a college education. Before he joins you in business, by all means, if it can be arranged, let him work for others, preferably in a related line outside of your town, where he will not be known at the "boss's son." Such experience and training will give him others' ideas and should produce a broader outlook. Nepotism of this kind is all right if carried out intelligently, but be fair about it as far as your employees are concerned. Too much family can wreck any business.

Make your employees feel that they have a definite responsibility in the business. Pass along to them some of the important work and reward them accordingly. Some business men become so enmeshed in detail that they cannot focus on a true picture of what is going on around them in business life. A man is a poor executive who cannot or will not delegate any responsibilities to others.

If you have a good year share with your employees in a material way. When days of adversity come they will be more willing to ride the tide with you and fight it out. This was demonstrated in many hardware stores during the past six years.

Do not be so sensitive and secretive about your business that the valued employee is kept absolutely in the dark. These are the days, and more are coming, when there must be and will be a closer tie between management and labor. Be in the vanguard of those treating labor well and you will not be forced to do things that would have paid you well to do voluntarily. If it was necessary for you to cut salaries during the depression, and if now through improved conditions your business has increased to pre-depression volume, restore those salaries as quickly as possible. Do not take the attitude adopted by some concerns, that because there are still so many on relief, and because you could hire new employees at lower wages than you are now paying, that you do not owe a definite something to those men and women who have stood with you through the depression and "seen it through."

Retail Hours Ordinance

IS a city ordinance valid that prohibits a certain class of retail establishments from being open for business beyond certain hours prescribed by the city?

An ordinance of that kind in an Ohio city was recently upheld by the courts. The ordinance did not restrict the operation of all retail businesses to the prescribed hours, but only that class of establishments named in the ordinance. While sustaining this ordinance as a valid exercise of the police power of the state and city, the Ohio court nevertheless pointed out that similar ordinances had been held unconstitutional in other states.

The power of the city to regulate retail business in this respect seems to depend primarily upon the view taken by the courts of the state in which such a regulatory ordinance is attempted.

Merchants affected or likely to be affected by such laws should be prepared to show that city regulation of hours of business of a retail store is unreasonable. The validity of such laws is based on the theory that they are reasonably necessary and appropriate for the protection of the health, morals, safety and welfare of the people. If they are not reasonably necessary for that purpose, they are not valid as a legitimate use of the so-called police power.

SAVE

Different — Better

•

A true "eye-eez" lamp with softer, yet perfect light diffusion.

•

SAVE offers you 2 special assortment deals, complete with valuable merchandising displays.

and NOW
TRANSLUCENT COLOR in NATURAL GLASS

Exclusive SAVE development to supply trade demand for more attractive decorative lighting. Beautiful gem-like colors. Greater, smoother diffusion of softly glowing light from entire bulb. For exterior or interior. Types and sizes for home lighting or commercial displays. Cost no more than ordinary colored lamps. Specify SAVE.

Write your jobber today for full information.

SAVE
ELECTRIC CORPORATION
TOLEDO, OHIO

HOW'S the

Dec. 30, 1937

ADVANCES

Some Everedy Braces, Door Checks and Metal Grilles.
Some Nelson Bros. Lines.
Kennedy No. 27 Machinists' Case and No. 34-RC Roller Cabinet.

DECLINES

Linseed Oil. Lead.
Eagle Lead Oxides.
Gasoline Blow Torches.
Rubber Covered Elec. Wire.
Copper Water Tubing.

Paint and Brush Lines—On Dec. 17 a decline of 1½ cents per gallon was reported on linseed oil, with no other recent changes in paint materials.

* * *

Builders' Hardware—The 1938 schedule of The Everedy Co. on door checks, braces, and metal grilles shows a number of moderate advances, including one of 75 cents per dozen on style 1100 door closers.

* * *

Daisy Air Rifles—The Daisy Mfg. Co. have issued an announcement stating that for 1938 "there will be no change in present prices of Daisy air rifles, bulls-eye shot, or Daisy target equipment."

* * *

Tool Kits—Kennedy Mfg. Co., makers of steel tool and sportsmen's kits, in announcing prices for the first quarter of 1938, is reaffirming most numbers (95 per cent of its line) without change, pointing out that these prices have been maintained since July, 1934. Advances are now named in only two styles, the No. 27 machinists' case, raised from $17.50 to $20.00 list, and No. 34-RC roller cabinet, marked up from $17.50 to $19.50 list.

* * *

Farm Engines, Pumps, Etc.—A new price list was issued Dec. 13 by Nelson Bros. Co., including only slightly increased prices, due, it is stated, to advances in costs of both labor and material, but with an effort to keep quotations as low as possible. The new quotation sheet covers the company's lines of air- and water-cooled engines, generator sets, feed mills, pump jacks, hand and pitcher spout pumps, and saw frames and mandrels.

* * *

Plumbing Lines—Plumbing departments in the hardware stores are enjoying a fair activity in the staple kitchen and bathroom installations, due to the modernization programs in many homes, where a better measure of prosperity through 1937 has permitted these expenditures. General activity in the plumbing and heating field, however, is held back by the sluggishness of building, and many manufacturers are now operating on greatly reduced schedules. A Dun survey reports that wholesale plumbing volume in the first ten months of 1937 fell 10 to 20 per cent below the same months of last year. Wholesalers' stocks are light, however, and some business is constantly being placed. Air-conditioning keeps its place as the most active branch, with even October gaining over a year ago, and the ten months' total 50 per cent ahead of 1936. Recent price changes in the plumbing field include a small drop on ¼-inch to 8-inch copper water tubing, effective Dec. 8, following the lower copper market. The Dole Valve Co. has put out prices, effective Jan. 1, 1938, with no change in dealers' schedules, but with some modifications in the wholesale quotations. A drop of 5 per cent was announced early this month on gasoline blow torches, both pint and quart sizes, by at least one manufacturer.

* * *

Rubber Products—Recent quotations on rubber in the wholesale commodity markets have steadied, and some slight advances have been noted, which indicate that the substantial drop from the 1937 peak has perhaps run its course. November consumption of crude rubber was the smallest in over three years, although imports were nearly at their highest mark, indicating a real confidence on the part of the larger buyers in the favorableness of today's market. Stocks on hand in America have been again built up to a total almost equal to that of last December, 217,000 tons, from a low mark of 164,000 tons in July. A further lowering in prices of rubber-covered electrical wire, Dec. 8, was governed chiefly by the low copper market.

* * *

Eagle Lead Oxides—Price lists, with declines on Eagle Lead Oxides, were issued Dec. 7 and 16 by The Eagle-Picher Sales Co., Cincinnati, Ohio. The lists applied to five-ton and less than five-ton shipments, priced by the pound on: litharge, sublimed litharge, Zerox.

HARDWARE Business?

Perox, red lead dry, and Orange Mineral AAA.

* * *

December in Hardware—The rush of last-minute holiday shopping, and a brisk demand for all sorts of cold-weather merchandise signalized the mid-month sales of December. The widespread prevalence of snow and ice quickly cleaned out many stocks of skates and sleds, and brought the usual shortages of snow shovels in unprepared stores. Carrying out earlier indications, gift goods in most sections have sold in "piece" volume well up to the good mark of last year, but "dollar" sales have suffered from the more careful and economical spending. This year's interest was largely in utility gifts and popular-priced items, often to the detriment of the more expensive pieces. Since 1936 Christmas business made very large gains over several preceding seasons; it will be a most satisfactory attainment if this year's sales shall come reasonably close to those of last December.

* * *

Shortened Stocks—As always at this season wholesalers' shipping facilities have been taxed, and the moderateness of their recent ordering is developing "shorts," difficult to replace on brief notice. An encouraging sign for many manufacturers lies in the rapidly decreasing inventories of nearly all wholesalers, who are leveling off their stocks to a point which will undoubtedly require early and frequent reordering. While manufacturers may miss the large unit orders to which they became accustomed during last winter and spring, there must come soon the start of a steady flow of small-lot business, in pleasing contrast to the stagnant ordering of the past several months. Buyers, not only the jobbing houses, but for the manufacturers themselves, are commencing, perforce, to rebuild depleted stocks, and so far as the "consumers' goods" field is concerned, there are signs that the low mark of ordering has been passed, with the new year sure to bring a fair measure of recovery. Comparisons with the extremely active winter months of last year will continue disappointing for a while, but it is felt in all quarters that the month-by-month comparisons are turning upward.

* * *

Steel Production — Despite a further recession in steel ingot production to 23½ per cent of the country's capacity, spotty improvement in orders and inquiries is becoming more apparent, possibly a forerunner of more widespread buying interest some time in January. Meanwhile a further reduction in operations may occur during the mid-holiday week as some mills, which now are trying to give as much employment as possible just before Christmas, will be shut down from Thursday or Friday, Dec. 24, until New Year's Day, says *The Iron Age* market summary for the Dec. 23 issue.

* * *

Industrial and Building Figures—General industrial production, reported by the Federal Reserve Board, reached in November the lowest level in 20 months, at 95 per cent of the 1923-25 average, compared with an average of 116 per cent for the first eight months of this year. The drop in the volume of building permits during November, reported by Dun & Bradstreet, Inc., reached 7.9 per cent under the November level of a year ago, while the drop from October—23.3 per cent—was considerably more than seasonal.

* * *

Carloading—Railroad freight traffic in the week ended Dec. 11 totaled 622,131 cars—a decrease of less than 1 per cent from the preceding week, but a drop of 15.7 per cent below the corresponding 1936 showing. Heavy coal shipments during the Dec. 11 week helped to maintain a fair volume. The railroad companies, as well as competing transportation systems, are enjoying an unusually heavy flow of holiday travel, similar to the increase experienced over the Thanksgiving week-end. Special sections and extra equipment have had to be added to nearly all regular passenger train runs. The early movement of vacationists to the South and to the far West is reported better than at this time in 1936.

* * *

Crop News—Recent Washington announcement shows the prospect of another large winter wheat crop in 1938, due to the sowing of the largest acreage on record during this fall. The condition of the winter wheat crop on Dec. 1 was rated higher than last year, but below the ten-year average. The final cotton report for 1937 from the Department of Agriculture confirms that an all-time record was set by this year's crop, at 18,746,000 bales. The yield per acre also reached a new all-time high of 264.6 lb. The December estimate exceeds even the high figure established a month previous, due to exceptionally favorable picking weather during November. The crop was produced on an acreage 13 per cent greater than the acreage harvested last year.

* * *

Farmers' Income — The Department of Agriculture in recent estimates shows the 1937 cash income of American farmers from crops and live stock was approximately 8½ billion dollars, compared with 7,920 million dollars in 1936. This increase, in the face of the fact that most farm products are priced much lower than in 1936, reflects the exceptional yields in all major crops. The farmer, too, has had an increased income through government benefit payments. His cash returns for this year will be the largest since the all-time peak in 1929 of nearly 10½ billion dollars. The Department of Agriculture feels that the decline in prices of farm products has about run its course, and will not extend further in the early months of 1938.

* * *

Commodity Prices — A slight turn for the better has been noted in the leading wholesale commodity indexes, including Moody's daily index, which on Dec. 15 reached 149.8

per cent of the late 1931 "par." The 1937 low mark was passed on Nov. 24, at 144.6 per cent, but the contrast is still very sharp with the high percentage of 228 reached on April 5, before the recessions started. Hide prices have strengthened further recently, due to a revival of buying by large users. The metals, other than steel, have apparently reached a level below which further large declines are not probable. A drop on lead of 25 cents per 100 lb. on Dec. 16 established a new 1937 low, 75 cents per 100 below last December's quotation. Copper is felt to be near the bottom of its market, quotations now ranging from 10¼ cents, by some smelters, up to 11 cents.

Shannon Crandall Honored

(*Continued from page* 32)

from a personal standpoint, and pointed out that, "To the unthinking the first consideration to come to mind would be 'a job'! And that is true, but is it all? Is there nothing finer and more enduring whereby we can remember him? He has taken most, if not all of us, as mere lads, full of life and devilment. He has wrought with us patiently and perseveringly to train us for the particular niches which we now fill. What patience he has needed . . . bending our stubborn wills to work in harmony with one another for the welfare of the institution of which we are all so proud.

"That he has succeeded is seen in the fact that the average term of employment of those present is almost 20 years. That is to say—junior employees of 10 to 15 years' of service are offset by seniors of 25 to 30 or more years. A wonderful tribute!

"I take it that the chief ingredients of character are integrity, purpose and kindliness. These have been exhibited before us all the years of our association with him; not in ostentatious display, but in the living of them day by day."

J. S. Sanders, Jr., representing the sales staff of the company, told of the esteem his unit of the company felt for Mr. Crandall. Similar tributes were outlined by John D. Perkins, manager of the hardware department.

A handsome picture of a California landscape by Granville Redmond was presented to Mr. Crandall by F. G. Geissler, secretary and assistant treasurer, representing the board of directors, who said, "Mr. Crandall, in behalf of those here assembled it is my great pleasure to present to you this token of their affection and esteem. Long may it hang on the walls of your home and your heart—and may the good Lord bless you and keep you with us for many, many years to come."

Shannon Crandall was born in Colusa, Calif., on March 25, 1871. As a young man—just past 16—he was employed by the pioneer wholesale hardware house of Huntington-Hopkins & Co., San Francisco. His affiliation with California Hardware Co. began on Aug. 1, 1897, as a junior partner. Since 1918 he has been president of the company and in a generous measure responsible for the organization's growth to its present size and importance as a hardware distributor.

His Chief Interest

His chief interest is the hardware business—directing the activities of his company and working in the interests of the entire hardware trade as president of the National Wholesale Hardware Association. He was elected president of the association in 1936 and carried out the duties and obligations of his office in such excellent fashion that he was re-elected at the October, 1937, convention of the association held in Chicago.

To his state he has given freely of his time, talents and energy. During the trying days of the World War he served as Federal Fuel Administrator for southern California. Long active in the Los Angeles Chamber of Commerce he served in 1929 as that group's president. The conservation of resources of his state has always been paramount among his many interests and for four years he was a member of the California Water Resources Committee. He is well versed in the banking problems and practices of the nation and has for the past three years been a member of the Federal Reserve Industrial Advisory Committee. Twenty years ago he became a member of the board of directors of the Security-First National Bank of Los Angeles, and continues as a member of the board.

Mr. Crandall is a member of the HARDWARE AGE Fifty Year Club.

Vacuum Cleaner Sales Reach Peak in 1937

ELECTRICAL vacuum cleaner purchases by American homes reached a new record high in 1937 that will prove to be 10 per cent greater than 1936 and 12.5 per cent above the next best year, 1929, when final figures are compiled.

The 1936 total was passed in November, 1937, and the figure for the year just closing will be almost 1,670,000, compared to 1,510,953 for 1936. The third quarter of 1937, traditionally the lowest of any year, was characterized by a volume 30.8 per cent as great as the total for all 1936. (The 1937 increase was figured by taking 200,000 as November - December sales, compared to 295,656 in the same months of 1936.)

The American public's discovery of allergies benefited the vacuum cleaner industry through this new understanding of the effects of dust on human health. The vogue for rugs and carpets of new textures in a general restyling of the American home carries with it greater responsibility for their care and preservation.

Use of cleaners is estimated to have reached a 70 per cent saturation figure in the cities, 30 per cent in the smaller communities and, of course, much less than that in farm homes. Replacements and expansion in the larger centers, continued growth elsewhere and rural household purchases in direct proportion to the spread of electrification will give the industry even greater totals in 1938.

—C. G. Frantz, secretary and treasurer, Vacuum Cleaner Manufacturers' Association.

An Important Addition to the Finishes Chart

Published Nov. 18, 1937 Issue

Due to a regretted oversight, the finishes symbols of the American Brass Goods Co., Grand Rapids, Mich., were omitted from the HARDWARE AGE Comparative Chart of Builders' Hardware Manufacturers' Finishes, published in our Nov. 18, 1937 issue as part of the series "Taking the Mystery Out of Builders' Hardware." This firm's symbols are given in the right hand column which may be clipped from this page and pasted on the charts to make them complete.

	U. S. Standard Symbols	*Copyrighted 1937 by Hardware Age* Description of Finishes	American Brass Goods Co.
1	US 3	Polished Brass	P.B.
2	US 4	Dull Brass	D.B.
3	US 5	Dull Brass Oxidized and Relieved	
4	US 6	Sanded Brass Oxidized and Relieved	SDB
5	US 8	Antique Copper	OC
6	US 9	Polished Bronze	
7	US 10	Dull Bronze	
8	US 11	Dull Bronze Oxidized and Relieved	
9	US 20	Statuary Bronze	
10	Special	Oxidized Bronze Relieved Oil Rubbed	
11	Special	Light Statuary Bronze Waxed	
12	US 14	Polished Nickel Plate	N
13	US 15	Dull Nickel Plate	DN
14	US 1B	Japanned	J
15	US 1D	Dead Black Japanned	
16	US 18	Genuine Bower Barff	
17	US 19	Imitation Bower Barff	F
18	US 22	Verde Antique Green	
19	US 23	Silverplate Dull Oxidized Relieved	
20	US 2H	Hot Galvanized	
21	US 25	White Bronze	
22	US 2G	Electro Galvanized	
23	Special	Dead Black on Forged Iron	
24	Special	Half Polished Iron	
25	Special	Rusty Iron	
26	US 26	Polished Chrome Plate	PC
27	US 26D	Dull Chrome Plate	DC

IT'S THE TOPS

Premax Floating Head SPRINKLER

When you are discussing quality in sprinklers — when you mention guarantee—when you see the performance of Premax on the end of a hose—then you'll realize why Premax is a best seller in its price class. Order a sample and try it. It's the tops!

and Here's a Big Popular Price Number

It's a Little Red-Headed Giant!

Without doubt, the Premax Turbine listing at 60c is the fastest seller in the popular price class. Only three parts—nothing to wear out—and eye appeal! It has it! Order a sample shipment—and watch them go!

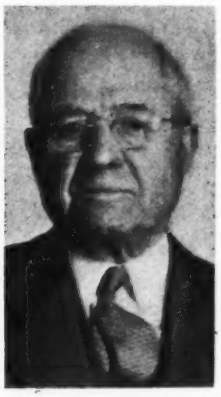
Premax Products

Division of Chisholm-Ryder Co., Inc.

3804 HIGHLAND AVE., NIAGARA FALLS, N.Y.

JAMES N. STANLEY

JAMES N. STANLEY, who has been retired from active business since Jan. 1, 1927, devoted his entire business career of more than fifty years to Landers, Frary & Clark, New Britain, Conn., appliance manufacturers. Entering the organization in August, 1876, as a boy of 15, he began his hardware career in the company's plating room. A year later he was transferred to the packing room, continuing in that department for five years, two years of that time as foreman. From 1885 to 1901 he traveled for the company, devoting his early years as a traveling representative to a New England territory. Later he was given charge of the middle New York state territory, and temporarily took on additional territory in Pennsylvania and Ohio for a fellow salesman who was then in poor health. From 1901 to 1917 he was factory manager for the company, handling, at the same time, a territory including Louisville, Ky., Cleveland, Ohio, and through part of New York state as well as the Boston wholesale trade. Mr. Stanley was appointed assistant secretary of the company on Jan. 31, 1905, and from Jan. 10, 1912, to March 25, 1925, he served the organization as assistant treasurer. A salesman at heart, Mr. Stanley returned to that end of the business in 1925 and continued in that activity until his resignation in 1927. Mr. Stanley, who became 75 years of age on July 23, 1937, is now taking life easily at his home in Brookline, Mass.



CHARLES C. HASELTON

CHARLES C. HASELTON, New York representative for The James Swan Co., Seymour, Conn., manufacturers of mechanics' tools, began his hardware career in August, 1874. Starting with the Russell & Erwin Mfg. Co. as an office boy, he advanced with that company to the position of stock buyer. When Russell & Erwin discontinued the jobbing line in 1911 Mr. Haselton left that organization. Since 1912 he has represented The James Swan Co. In his sixty-two years of business he was only absent from his duties but once when he suffered a short session of typhoid fever. His good health he attributes to one of his hobbies—golf, which he has played for the past thirty-five years. During the World War he gave freely of his time to government work, being a delegate for many lines of tools in the Manufacturers Organization for War Service. As a Liberty Bond salesman during the war he devoted much of his time, energy and sales talents to the five bond campaigns.

MILES J. WATSON

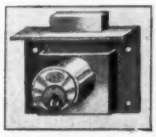
MILES J. WATSON of Oberlin, Ohio, active head of the Miles J. Watson Hardware Co., says that his position with the company is "sitting on the front seat and driving." Although mechanical refrigeration was unknown when he entered the hardware business at the age of 19, back in 1887, his main hobby today is selling electrical refrigerators. He has long been active in the Ohio Hardware Association, is a past president of that group and served it for many years as a member of the board of directors. For fifty years he has taken an active part in the affairs of Oberlin merchants. He is past president of the Oberlin Chamber of Commerce and has been a director of the Peoples Banking Co. for many years, and helped organize it. Mr. Watson is a staunch churchman and devotes much of his leisure time to church activities. He celebrated his 69th birthday on July 2, 1937.

(*Continued on page* 60)

SMILES OF SATISFACTION
from the
DEALERS
who buy
THE BALANCED LINE

THE Dealer who sells the Balanced Corbin Line enjoys steady profits, steady customers and steady turn-over. There are no hidden headaches from shelf-warmers; no inventory losses. Experienced hardware dealers long ago learned that Corbin Products build the business.

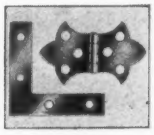
PADLOCKS



CABINET LOCKS

MAIL BOXES

CABINET HDWE.

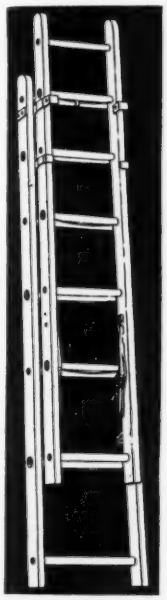


MISC. HDWE.

CORBIN

NEW YORK CHICAGO **CORBIN CABINET LOCK CO.** THE AMERICAN HARDWARE CORP. Successor CORBIN LOCK CO. OF CANADA, LTD BELLEVILLE, ONT.
NEW BRITAIN CONNECTICUT

Reach a New High in Ladder Sales... with RICH



Increase your sales and profits with SAFE RICH ladders.

Made of carefully selected long-grain spruce; reinforced with cadmium plated hardware; RICH ladders are profit makers for progressive hardware dealers.

Large warehouse stocks at strategic points assure prompt shipments.

See your jobber—he can supply you.

THE RICH PUMP & LADDER CO.
1028 Depot Street Cincinnati, Ohio

WICKWIRE *Special Nails*

● This ad will not interest those who assume the easy-going attitude that "a nail is a nail". But Carpenters, Millwrights, Crating Departments are wise to the differences in Wickwire special nail *performance*—the difference in wire quality, in uniformity of heads and points that save time and waste of materials. ● Wickwire offers you special nails in all styles, sizes and finishes—bright, cement coated, galvanized or coppered. ● Specials for nailing machines; diamond, needle and duckbill points. Specify Wickwire Nails and test the difference.

WICKWIRE BROTHERS
CORTLAND · NEW YORK · U. S. A.

BIG SELLER TO BUILDERS

BLAISDELL BUILDERS No. 659 is a popular seller to Carpenters, Builders and Contractors who prefer it to all other pencils for clear, rapid marking.

Made in three grades, No. 659 Hard, No. 660 Soft and No. 664 Medium. Finished in Bright Red to catch the eye. Stock and display these much demanded pencils where customers will **see** them and be ***reminded*** of their need.

Samples furnished on request
Order from Your Jobber

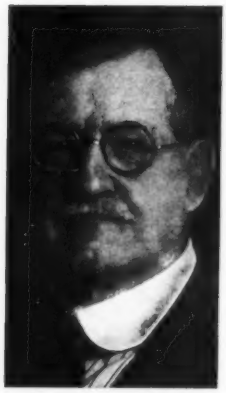
Blaisdell PENCIL COMPANY, PHILADELPHIA

Hardware Age Fifty Year Club

(*Continued from page* 58)

ADAM J. SMITH

ADAM J. SMITH has devoted 54 of his 75 years to the hardware business in Sandusky, Ohio, and as he is in excellent health he intends to continue his activity as a hardwareman for quite some time to come. He was just a few months over 21 when he became an employee of the Barney & Ferris Hardware store on Dec. 10, 1883. Seven years later the business was taken over by P. L. Van Alstyne, with whom he remained until 1903, when the business was sold to J. Frank Donahue. Mr. Donahue incorporated the business and Mr. Smith became a member of the firm. On June 10, 1910, he and Freeland W. Smith entered business for themselves in E. Market St., Sandusky, where the Smith Hardware Co. continues to do business. Mr. Smith tells us that he has enjoyed his long experience as a hardware dealer and that hardware is his chief hobby. He is well known and well liked in his community and has many friends throughout the city. Mr. and Mrs. Smith celebrated their golden wedding anniversary on Oct. 27, 1937.



FRANK COLLADAY

FRANK COLLADAY, chairman of the board and treasurer, The Frank Colladay Hardware Co., Hutchinson, Kan., wholesale hardware distributors, has been a hardwareman for 71 years. He was 17 years of age when he became an employee of the hardware store of A. Hess, Bushnell, Ill., in 1867 and continued there until 1877 when he left to start a retail hardware store in Waterloo, Iowa. Life in Waterloo was to his liking but Hutchinson, Kan., looked like a more desirable town in which to live and conduct business so Mr. Colladay moved to that community to start his own retail business there in 1885. For 18 more years he remained in the retail hardware business, beginning his wholesaling activities in 1903. The Frank Colladay Hardware Co., was formed in 1904, at which time Mr. Colladay was elected president and manager, offices he held until 1922 when he resigned in favor of his son Charles. Since 1922 he has been chairman of the board of the company and treasurer. When in Hutchinson he makes it a practice to be at his office part of every business day. He keeps in close touch with the business and offers his advice when it is needed. He has attended many of the annual joint conventions of hardware wholesalers and manufacturers and met many of his old friends at the 1937 Chicago convention. He is a former director of the Western Implement & Hardware Association and has also been a director of a local bank. Mr. Colladay is a past president of the local Chamber of Commerce and was at one time a member of City Council. Every day Mr. Colladay drives his own car. He says that his hobby, if any, is owning new cars. In the past 23 years he has owned and operated 17 new machines.

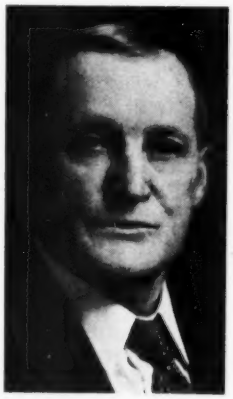
D. C. BARTON

D. C. BARTON, Boonton, N. J., hardware dealer, who was 79 last August, has been active in the hardware business since 1872, when as a boy of 14 he started working in a retail hardware store. Mr. Barton continued working in the same store, which later became the E. B. Dawson Hardware Co., until 1889, when he became a partner in the hardware store of Barton & Looker Co. In 1902 he also became a partner of his brother, A. R. Barton, in a hardware store in Passaic, N. J. Since 1903, when he sold his interest in the Passaic store to his brother, A. R. Barton, he has devoted his entire attention to the Boonton store. When Mr. Looker passed away in 1909, Mr. Barton became sole owner of the store which has since been operated as the D. C. Barton hardware store. Mr. Barton's son is associated with him in the retail hardware business. Motoring and tending to his gardens are the chief activities of Mr. Barton in his leisure moments.

TWO MORE VETERAN EMPLOYEES of Wickwire Brothers, Cortland, N. Y., manufacturers of wire cloth, nails, wire and netting, were recently honored by many of their associates at a banquet in honor of their completion of 50 years of service with the company.

EDWARD B. HEALEY was a lad of 16 when, on March 19, 1887, he began working in the Wickwire mill. In latter years he has been in charge of night operations at the mill as night superintendent. Particularly fond of outdoor sports he enjoys baseball, hunting and fishing.

ABNER W. NILES, an expert wire cloth weaver, has been a Wickwire man since 1887. He was just 16 when he joined the company and has never been connected with any other organization.



EDWARD B. HEALEY

ABNER W. NILES

Rural Electrification

(*Continued from page 25*)

many private utilities lose money on every *city* customer they have on their books who uses less than 50 kwh. This, even where they are supplying the trade in thickly conjested areas where there are often 10, 15. 20, 30 customers to the mile . . . where the investment per customer, the cost of reading meters, etc., is but a fraction of what it is in the rural field.

This matter of rural electrification is a big subject. Arthur W. Baum in *The Country Gentleman*, 1936, made this statement:

"The rural man must learn if he doesn't know it already, that no matter whose money is used to put up the poles and pay the lineman's salary, there must be adequate economic support for the investment, otherwise someone will get hurt and frequently it will be the rural man himself.

"REA in some cases is adventuring into a thinner territory than the utilities have dared to enter, but even REA is indulging in a form of skimming the cream, as they so often accuse the power companies of doing, for REA will not lend on what it considers insupportable projects. And insupportable projects are usually those where there are less than three customers to the mile, which means REA will have to skip many, many miles of farm country.

"The job of securing the line itself can be accomplished if there is sufficient revenue in sight for the builder, either private or REA. A typical REA cooperative asks for $180 revenue from each mile per year to justify construction."

In conclusion — these findings on the progress and probable extension of rural electrification should not be construed as a criticism of the basic idea of carrying electricity to the farmer. But it is hoped they will serve as effective criticism of those advocates of rural electrification who have permitted their hopes and aspirations—whether prompted by political sentiments, selfish interests, or ignorance—to cause them to make statements which have made many farmers believe that electrification is "just around the corner" . . . a thing which is far from true.

"They Got In Their Cars and Drove Home"

A BUSINESS man walked into the office of a large New England manufacturer the other day, just a few hours after a strike had been called. An executive of the strike-afflicted company said—"We were very much surprised because our wages are satisfactory to the men and to the union. It seems to be merely a detail of the designation of our foreman."

Apparently it was just another way of demanding recognition. The union organizers seem very persistent in forcing the manufacturer to help them secure members and dues. It is a sort of modern way of making the boss say "Uncle."

The above mentioned executive unwittingly inspired this editorial because of the casual manner in which he said—"They got in their cars and drove home." He was explaining that only a dozen or so of the several hundred of their employees were involved. Many of the men employed by that great organization had expressed regret over the forced strike. Furthermore, they apparently did not want to get mixed up in any violence; that is why they considered it wise in view of recent newspaper reports to fade out of the picture and hope for the best. Of course, the union furnished the pickets.

If the workers let irresponsible leaders take over this government, they won't ever again "ride home in their automobiles."

The late Will Rogers said in a radio speech that one of the things that impressed him most in Russia, from whence he had just returned, was that, since the so-called leaders of labor had taken over the government, no laboring man had ever owned an automobile and communism had been in effect for seventeen years.

The laboring men of the United States had better stop, look and listen, and do it now.

—*An editorial from The Interborough Press, Spring City, Pa.*

STEEL in a Hurry?

All shapes, sizes, and kinds of steel are carried in Ryerson stocks for Immediate Shipment. Unusual facilities for cutting, handling and dispatching assure accuracy, dependability and speed. When you need steel, draw on the nearest Ryerson plant. Ryerson Stocks Include: Bars • Stainless • Sheets • Plates • Shafting Screw Stock • Alloy Steels • Tool Steels Structurals • Tubing • Welding Rod, Etc.

Write for Stock List.

Joseph T. Ryerson & Son, Inc., Chicago, Milwaukee, St. Louis, Cincinnati, Detroit, Buffalo, Cleveland, Boston, Philadelphia, Jersey City.

Phone, Wire or Write RYERSON

"Equipped with an A-P CONTROL!" Means Much to Your Oil Heater Customer . . .

Model 240 KR Constant Level Oil Control

Show your customers the A-P Control on your Heaters. It's the manufacturer's final guarantee of Heater efficiency and dependability, of economical Home Heating Comfort. The only "operating" part on your heater, the A-P Control carries the great responsibility for the correct fuel feed to the Burner for any desired temperature.

"Modern Oil Heat" means A-P Controlled heating — either Manually operated or Automatic with the A-P Thermostatic Control. For a powerful sales story on Modern Home Heating convenience and comfort, — write for details on A-P Controls.

AUTOMATIC PRODUCTS COMPANY

2442 NORTH THIRTY-SECOND STREET

MILWAUKEE WISCONSIN

Social Security

By J. S. SEIDMAN, C.P.A.
Member Committee on Federal Taxation, American Institute of Accountants

UNION rules and conditions prescribed with reference to hours, wages, lay-offs, etc., do not alter the status of the help as employees for federal social security tax purposes, even though employers may be considerably limited in the control over their help by reason of the union regulations. Where, however, there is a complete absence of control and direction over the men, they then come in the class of independent contractors rather than employees, and their compensation is not taxable.

* * *

This principle is given another workout in a ruling on manufacturers' agents. In the particular case giving rise to the ruling, a manufacturer engaged agents on a commission basis for definite territories. The agents handled other lines as well. In the contract with the manufacturers, they were specifically referred to as independent contractors. Nevertheless, it was held that they were employees of the manufacturer, since the manufacturer had the right to control and direct their services to the extent necessary for the manufacturer's business.

* * *

Honorary officials in an organization may have their advantages, but they can also have serious tax drawbacks. It has been ruled that no matter how "stuffed-shirt" they may be, functioning only nominally and without compensation, they are nevertheless employees to be counted in determining whether an organization has eight or more employees, and hence subject to unemployment insurance tax. As a result, a trade association with five paid employees, one of whom was its president, and five honorary vice-presidents was declared taxable, whereas without the honorary vice-presidents or with no more than two under the circumstances, there would have been no tax.

* * *

Where a company is going through the "wringer" by way of bankruptcy reorganization under Section 77(B), and in the process the business is operated by a trustee, the company status is regarded as continuing rather than the formation of a new trust entity. Accordingly, the tax is to be computed and the company's returns filed just as if no reorganization petition had intervened.

Our Foreign Citizens

(Continued from page 38)

get acquainted with us. That is a good idea. There would be fewer misunderstandings if Europe understood us better. In England, they send children over to France, Germany and Italy to board with native families, to learn the language and customs.

In these times when nationalism has become so rampant, what we really need is to know our foreign neighbors better. When we do we will find that upon the average they are pretty good people and possibly just as good as us one hundred per cent Americans.

Front of America's First Bolt Factory Installed in Office of Clark Bros. Bolt Co.

THE front walls and part of the roof of America's original bolt and nut factory have been recently reassembled and set up in the lobby of the office of Clark Bros. Bolt Company, Milldale, Conn. It may be seen along one side of the firm's modern lobby, board for board, nail for nail, as it was built in 1840.

This building was designed and built purposely for the bolt and nut business by Rugg & Barnes of Marion, Conn., as has been stated, in 1840. It was later sold to L. B. Frost & Son of Marion and after temporary use as an ivory and bone button shop was moved to a location about 1000 feet away from its original site.

The building was originally 30 by 20 feet and the posts were 9 feet high. The forging shop occupied the left end of the building, while the packing, shipping and storage room, totalling about two-thirds of the space, was on the right side. This building is fully described in "The History of the Bolt and Nut Industry of America," by W. R. Wilbur, Cleveland, Ohio, which was published in 1905.

Following the early venture of the first bolt makers in Marion, Conn., both Micah Rugg and Martin Barnes were employed as bolt makers by the Clark Brothers during the years 1851 to 1886 in Milldale, which is about a mile from the site of the original factory.

The front of America's first bolt factory as it now appears in the lobby of the office of Clark Bros. Bolt Co., Milldale, Conn.

This is Sargent's modern display room at its new offices, 342-344 Broadway, New York City.

Sargent Opens New Display Rooms and Offices in New York

SARGENT & CO., New Haven, Conn., manufacturer of locks and hardware for more than 75 years, has moved its New York Division from 94-98 Centre St. to 342-344 Broadway. The former site on Centre Street had been owned by the company since 1904 but has been taken over by the City of New York as part of a plot of ground acquired for the new Criminal Courts Building.

F. ROBBINS

The new modern office and warehouse will be occupied by the New York Sales Division to cover Brooklyn, Long Island, New Jersey and Metropolitan New York. A representative stock, carefully selected to meet customer's immediate requirements in that territory, will be carried.

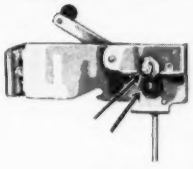
The Contract Hardware Division for the Metropolitan district will also be situated at this new address. This central location with a well appointed and equipped display room, provides convenient facilities for the use of architects, contractors and their clients in the consideration and selection of builders' hardware. The company invites the use of its display room. From this address also, the Export Division will continue to conduct the sales and other phases of the firm's foreign business. The telephone numbers remain the same—Worth 2-6051-6052-6053-6054-6055-6056.

Frank Robbins is manager of the New York Division. He has been associated with Sargent for 44 years, having entered the company's employ in 1893 in its New York office.

Bank Clearing, etc. — Bank clearings in the latest reports show more favorably, in that the decreases from 1936 are lessening. From all quarters, collections are reported unusually good, and this in spite of the fact that installment sales have been increased largely in the hardware field. Installment selling was inaugurated for the first time this year by many retailers, forced by the necessities of competition to offer deferred payment plans for the marketing of oil heaters, ranges, refrigerators, washing machines, and other major items.

TURNOVER CHAMPIONS

Coast to Coast selling champions because they are first of all QUALITY champions. Keep ample stocks always.



DAZEY De Luxe
Formerly SPEEDO
America's best value in can openers. Guaranteed for 5 years—built to last a lifetime.
*$1.79 RETAIL

*Also, DAZEY Senior *$1.49 retail and DAZEY Junior *78¢ retail.*

NEW DAZEY OPN-SEAL
Amazing new jar, bottle and glass opener. Also seals. Needed in every home.
*$1.79 RETAIL

DAZEY SUPER JUICER
An exceptionally efficient juicer for lemons, oranges, small grapefruit. Striking appearance. Gets more juice easier. Automatically strains out seeds and pith.
*$1.89 RETAIL

* Minimum retail prices — slightly higher west of Rockies.

DAZEY Sharpit
Patented twin wheels make skill unnecessary for sharpening any edged tool. A Godsend in any kitchen.
*$1.58 RETAIL

DAZEY CHURN & MFG. CO. 4301 Warne Ave., St. Louis, Mo.

Changes

New products and new trade names are constantly being added to the listings for the next Directory Number of HARDWARE AGE.

Therefore, if you do not find in the current issue of the Directory Number the product you are interested in, write to the "Who Makes It" Editor. *He'll be glad to serve you.*

HARDWARE AGE
239 West 39th St., New York City

Sherwin-Williams Honors H. D. Whittlesey

(*Continued from page* 29)

industry. At that time the company was just 21 years old and its business consisted chiefly of manufacturing a few paint items, such as quick drying colors, first quality oil colors, Family paints, French crown green, wagon and coach paints and SWP (prepared house paint) had just been perfected a few years before on Mr. Sherwin's formula.

"Young Whittlesey applied himself diligently during the 90's as office boy and clerk in the sales department, assistant sales manager, trade sales manager—always keeping his eye on a job just ahead. He handled complaints, answered correspondence, started the company's first sales promotion work and never overlooked a chance to find out everything there was to know about the goods and the customers and what people wanted.

"On April 2, 1900, when the company decided to open up an eastern branch, he was promoted to Eastern Manager at Newark, N. J., and his territory included everything from the tip of Maine to the Gulf of Mexico including the entire eastern seaboard and export.

"In 1901 he married Mary Brownlee Albright, daughter of W. B. Albright, director and star salesman of The Sherwin-Williams Co. In 1907 their only son, Dewitt, Jr., was born.

Rapid Progress

"During the seventeen years of Mr. Whittlesey's management of the Eastern business, steady and rapid progress was made by adding territories, developing salesmen, locating new warehouses. This development took place not only in the dealer business but also in the manufacturing business and the export. By the time 1915 came around, he had built up such a large volume of business that the Atlantic Coast district under his leadership won the entire company 'top-notcher' with a record sales volume.

"On December 1, 1917, Mr. Whittlesey was called to Cleveland headquarters as Managing Director of Sales for the entire Sherwin-Williams Co. On December 7, 1917, he was elected a director of the company. On November 10, 1919, he was elected a vice-president of the company and was invited to join the American Society of Sales Executives, in which organization he has been a prominent member ever since. On June 22, 1930, he was made First Vice-President and Director of Sales. On October 1, 1936, he was made First Vice-President and Executive for the Allied Companies, further enlarging the scope of his operations and activities.

Many Hobbies

"Mr. Whittlesey has many hobbies, including sports of all kinds —golf, baseball, duck shooting, hunting, winter sports, etc., but he gets his greatest enjoyment out of meeting, knowing and helping people.

"Among some of the sales slogans and sayings he is famous for are:

'It's what you do with what you have that counts.'

'Have some authority to your selling.'

'If buyers didn't say "no" there would be no need for salesmen.'

'How much time do you spend in the presence of prospects?'

'Multiply yourself on your territory.'

'Be bigger than your job.'

'Results will be as big as your aim.'

'It pays to mind our own business.'

'You are The Sherwin-Williams Co. on your territory,' and

'Be high-toned in everything.'

"Mr. Whittlesey likes people and makes friends. He typifies the man Dale Carnegie writes about. He is a master salesman who has a personality and magnetism that naturally attract friends. He is a human dynamo of energy and enthusiasm—has a storehouse of ideas and a prodigious memory for names and faces. He is a leader of men, likes other people's problems and to help solve them.

"When some reference was made recently in his hearing to the fact that he was a self-made man, Mr. Whittlesey replied, 'No, *not* self-made—it was the way the other fellow helped.'

"And having completed on October 10, 1937, 50 years of continuous service with The Sherwin-Williams Co., Mr. Whittlesey is going stronger than ever, actively on the job every day, knows everything that is going on and each new day sees him more keenly interested in tomorrow's and next week's record and sales report than in yesterday's."

Following this, Mr. Martin presented Mr. Whittlesey with the diamond pin, symbolic of 50 years' service with the company.

Guests from all over the country were on hand to greet the "Sales Chief" as Mr. Whittlesey is known, and many of the leading men in the paint and varnish industry were present, including Fred Allen, managing director of Lewis Berger & Sons, Ltd., London, England.

The Sherwin-Williams Co. now has 501 active workers who have served 25 years or longer, out of a total of 824 who have attained the long service distinction since the plan was organized back in the 80's by Henry A. Sherwin, founder of the company.

Cost of Living

IN line with the gradual recession in retail prices, living costs, reported by the National Industrial Conference Board, are declining, being .6 of one per cent lower in November than in October. All major items in the average family budget, except coal, made a slight decline. Perhaps the most significant change at this time was a very slight drop in rents, the first such recession since January, 1934, although the rent item in the budget still stands disproportionately high at a 42 per cent increase over early 1934. The purchasing value of the dollar, at the end of November, according to the board's index, was 112.4 cents, compared with 116.6 cents last November, and 100 cents in 1923.

There's Profit in a Cellar

(*Continued from page* 22)

came to an estimated total of $258.75, with additional expenses totaling $78.90. Appliances and conditioning equipment would have been additional extras.

The estimated cost of the sports room—including painting, alterations, some of the special furnishings and ping-pong tables—would have totaled $273.25. Heating equipment and some of the other special equipment shown would have necessitated additional expenditures.

Expressed in terms of monthly payments none of these costs would seem to be too high although care would have to be exercised to see that only those whose credit rating was good be permitted to pay for alterations and equipment on deferred payment plans. These three suggested alterations just scratch the surface. Plans were prepared by Parsons students for music rooms, study rooms, offices, private bars, general recreation rooms, home gymnasiums and a wide variety of other modern basement layouts.

You could probably make arrangements in your community with interior decorators who would, for a percentage of profits on jobs you actually sold, give their advice and assistance in the the selection of color schemes, layouts and general decorative effects. If your store has a sales clerk who is good at model-making, he could easily fashion rough paper or cardboard models for showing a prospect how an improved basement would appear.

Basement remodeling projects can be made a source of real profit to the hardware dealer who is willing to spend some time working on the idea. Where a customer is unable or unwilling to have a complete remodeling project done at one time the dealer can sell the idea of having the improvements made over a period of months or even several years on a budget plan. If you can sell prospects on the idea that immediate work on a basement remodeling project will protect them from higher costs because of rising material prices and increasing wages, so much the better for your store. These projects are well worth selling since what you will be selling has practically a year 'round usefulness.

Washer and Ironer Sales Exceptional in 1937

THE members of the American Washing Machine Manufacturers' Association produced and sold more household washers and ironers in the first 10 months of 1937 than in any full year of the industry's history, with the single exception of 1936. The total for 1937 will be close to 1,840,000, or within less than 5 per cent of the 1936 all-time high, which was 1,909,416 washers and ironers.

The year just closing is the fifth successive 1,000,000-washer year the industry has enjoyed.

In the face of the greatest and most varied inter-industry competition ever known for the consumer's favor, 41.9 per cent of all washers shipped in the January-October period were in classes retailing at more than $70, with the figure hitting 46 per cent in October, latest month for which figures have been compiled.

Until August, 1933, this industry never knew a month as big as October, 1937, turned out to be, with its total of 128.448 units. October came on the heels of a buying bee that moved 3,451,854 washers and ironers into our homes in 21 months. Since January 1, 1933, women have installed more than 7,500,000.

Home laundering appliances have become mandatory in American living. The industry's sales continue in large volume through economic changes of whatever size. When business is down, more families in upper brackets buy. When business is up, more families in lower brackets buy. The farm market advances even when metropolitan conditions fluctuate. The planned, fully equipped home laundry room grows steadily in popularity.

—*Joseph R. Bohnen, executive secretary, American Washing Machine Manufacturers' Association.*

We wish you

A

CHAMPION YEAR

Make 1938 profitable with

CHAMPION HARDWARE

The CHAMPION HARDWARE Co.

GENEVA, OHIO

NEW YORK OFFICE 51 MURRAY ST.

AT YOUR SERVICE!

THE "Who Makes It" Editor will be glad to help you in your search for the name of the manufacturer of that product you are interested in.

If you do not find it or its trade name listed in the current Directory Number, in all probability it has been incorporated in the revised listings that are being prepared for the next issue of the Directory Number. Many such changes are being made daily and the listings brought up to date.

If your current Directory does not give you the information you seek, write the "Who Makes It" Editor. *He's at your service!*

HARDWARE AGE

239 West 39th Street New York, N. Y.

Coming Conventions and Events

Alabama The Retail Hardware Assn. of, exhibition and meeting, June 7-9, 1938, at the Gay Teague Hotel, Montgomery, Ala. J. H. Crowe, 410 N. 21 St., Montgomery, Ala., secretary.

American Hardware Manufacturers Assn. and Southern Hardware Jobbers Assn., April 11-14, 1938, at the Peabody Hotel, Memphis, Tenn. Secretary, manufacturers association, C. F. Rockwell, 342 Madison Ave., New York City. Secretary, jobbers association, T. W. McAllister, 1020 Grant Bldg., Atlanta, Ga.

American Hardware Supply Co. 41-43 Terminal Way, South Side, Pittsburgh, Pa. Jan. 24-25, 1938. Wm. M. Stout, general manager.

Arkansas Retail Hardware and Implement Assn., Feb. 15-16, 1938, at Marion Hotel, Little Rock, Ark. G. L. Turner, Little Rock, secretary.

California Retail Hardware Assn., Feb. 15-17, 1938, at Hotel Whitcomb, San Francisco, Calif. LeRoy Smith, 417 Market St., San Francisco, manager.

Connecticut Hardware Assn., Feb. 23-24, 1938, at Taft Hotel, New Haven, Conn. Charles F. Freeman, Branford, Conn., secretary.

Eastern Hardware Golf Assn., fourth annual tournament, May 19-21, 1938, at Buckwood Inn, Shawnee on the Delaware, Pa. H. L. Gilliam, 50 Church St., New York City, secretary.

Gift Show and China, Glassware and Pottery Market, Jan. 31-Feb. 12, 1938, in The Merchandise Mart, Chicago, Ill.

Hall Hardware Co., 618 N. Third St., Minneapolis, Minn., Feb. 15-17, 1938.

Illinois Retail Hardware Assn., Feb. 15-17, 1938, at Hotel Sherman, Chicago, Ill. C. G. Gilbert, 1155 Merchandise Mart, Chicago, managing director.

Indiana Retail Hardware Assn., Jan. 25-28, 1938. Exhibit and meetings at Murat Temple, Indianapolis, Ind. Headquarters, Lincoln Hotel. G. F. Sheely, 915-35, 130 E. Washington Bldg., Indianapolis, managing director.

Intermountain Assn., Jan. 25-27, 1938, at Boise, Idaho. E. Bell, 211 S. Ninth St., Boise, Idaho, secretary-treasurer.

Iowa Retail Hardware Assn., Feb. 8-11, 1938, at Des Moines, Iowa. Exhibition, Coliseum; headquarters, Hotel Savery. Philip R. Jacobson, Mason City, Iowa, secretary-treasurer.

Kentucky Hardware and Implement Assn., Jan. 18-20, 1938. Exhibit and meetings at Seelbach Hotel, Louisville, Ky. J. M. Stone, Seelbach Hotel, secretary-treasurer.

Marshall-Wells Co., Duluth, Minn., Associate Congress—Jan. 31-Feb. 3, 1938, in Duluth; Feb. 7-9, 1938, in Billings, Mont.; Feb. 15-17, 1938, in Portland, Ore., and Feb. 21-23, 1938, Spokane, Wash.

Michigan Retail Hardware Assn., Feb. 8-11, 1938, at Detroit, Mich. Exhibit, Convention Hall; headquarters, Statler Hotel. Harold W. Bervig, 1112 Olds Tower Bldg., Lansing, Mich., secretary.

Minnesota Retail Hardware Assn., Feb. 22-25, 1938, at Minneapolis, Minn. Exhibit, Municipal Auditorium; headquarters, Curtis Hotel. C. J. Christopher, Nicollet at 24th St., Minneapolis, manager-treasurer.

Missouri Retail Hardware Assn., Feb. 22-24, 1938. Exhibit and meetings at Hotel Jefferson, St. Louis, Mo. Peyton C. Clark, 2861 Gravois Ave., St. Louis, secretary.

Mountain States Hardware & Implement Assn., Jan. 17-19, 1938, at Cosmopolitan Hotel, Denver, Colo. John T. Bartlett, 637 Pine St., Boulder, Colo., secretary-treasurer.

National House Furnishings Mfrs. Assn., Jan. 9-15, 1938, at Stevens Hotel, Chicago, Ill. Warren Edwards, 228 N. LaSalle St., Chicago, secretary.

Nebraska Retail Hardware Assn., Feb. 1-3, 1938, at Omaha, Neb. Exhibit, Municipal Auditorium; headquarters, Hotel Rome. Ed Hermanson, 325 Insurance Bldg., Lincoln, Neb., secretary-treasurer.

New England Hardware Dealers Assn., March 1-3, 1938. Exhibit and meetings at Statler Hotel, Boston, Mass. George G. Hoy, 140 Federal St., Boston, secretary.

New York Housewares Mfrs. Assn. show, July 10-16, 1938, at Hotel Pennsylvania, New York City. Executive secretary, Flo English, Hotel Pennsylvania, New York.

New York State Retail Hardware Assn., Feb. 8-10, 1938. Exhibit and meetings at Statler Hotel, Buffalo, N. Y. John B. Foley, 510 Hills Bldg., Syracuse, N. Y., secretary.

North Coast Hardware and Implement Dealers Assn., Feb. 10-11, 1938, at the Olympic Hotel, Seattle, Wash. T. S. Coy, Olympic Hotel, Seattle, secretary.

North Dakota Retail Hardware Association, Feb. 8-10, 1938, at Grand Forks, N. D. Exhibit, City Auditorium. Louise J. Thompson, 21 Clifford Bldg., Grand Forks, N. D., secretary-treasurer.

Ohio Hardware Assn., Feb. 15-18, 1938, at Columbus, Ohio. Exhibit, Columbus Auditorium; headquarters, Deshler-Wallick Hotel. John B. Conklin, 175 S. High St., Columbus, secretary-treasurer.

Oklahoma Hardware & Implement Assn., Feb. 1-3, 1938. Exhibit and meetings at Civic Auditorium, Oklahoma City, Okla. C. F. Nelson, 301 Key Bldg., Oklahoma City, secretary-manager.

Pacific Northwest Hardware & Implement Assn., Feb. 7-9, 1938. Exhibit and meetings at Davenport Hotel, Spokane, Wash. Dale Strong, 523 Realty Bldg., Spokane, secretary.

Panhandle Hardware & Implement Assn., Feb. 7-8, 1938, at the Herring Hotel, Amarillo, Tex. C. L. Thompson, Canyon, Tex., secretary-treasurer.

Pennsylvania and Atlantic Seaboard Hardware Assn., Feb. 1-4, 1938. Exhibit and meetings at Convention Hall, Philadelphia, Pa. W. Glenn Pearce, 400 N. Broad St., Philadelphia, managing director.

Pennsylvania Wholesale Hardware and Supply Assn., March 24-25, 1938, at the Hotel Astor, New York City. Samuel B. Smith, Steinman Hardware Co., Lancaster, Pa., secretary.

Philadelphia Motor Boat & Sportsmen's Show, Jan. 22-29, 1938, at Commercial Museum, Philadelphia. Franklin H. Bates, 1509 Fox Bldg., Philadelphia, secretary of Boat Trades Assn. of Philadelphia, sponsoring organization.

South Dakota Retail Hardware Assn., March 15-17, 1938, at Sioux Falls, S. D. Exhibit, Coliseum; headquarters, Cataract Hotel. C. J. Christopher, Nicollet at 24th St., Minneapolis, Minn., manager-treasurer.

Southern California Retail Hardware Association, Feb. 6-10, 1938. Convention and exhibit at Shrine Civic Auditorium, Los Angeles, Calif. Meetings on Feb. 7 and 8. J. V. Guilfoyle, 1126 Rives-Strong Bldg., Los Angeles, secretary-treasurer.

Southern Hardware Jobbers Assn. and American Hardware Manufacturers Assn., April 11-14, 1938, at the Peabody Hotel, Memphis, Tenn. Secretary, jobbers association, T. W. McAllister, 1020 Grant Bldg., Atlanta, Ga. Secretary, manufacturers association, C. F. Rockwell, 342 Madison Ave., New York City.

Texas Hardware & Implement Assn., Jan. 25-27, 1938, at Hotel Baker, Dallas,

Tex. Dan W. Scoates, College Station, Tex., secretary.

Third International Housewares Show, Jan. 3-15, 1938, in The Merchandise Mart, Chicago, Ill.

Triple Convention of the Southern Supply & Machinery Distributors Assn., the American Supply & Machinery Manufacturers Assn., the National Supply and Machinery Distributors Assn., May 9-11, 1938, at the Hotel William Penn, Pittsburgh, Pa. Alvin M. Smith, Smith-Courtney Co., Richmond, Va., secretary of Southern Assn.; R. K. Hanson, 916 Clark St., Pittsburgh, secretary American Assn., and H. R. Rinehart, 505 Arch St., Philadelphia, Pa., secretary National Assn.

Virginia Retail Hardware Assn., Feb. 22-23, 1938, at the Jefferson Hotel, Richmond, Va. R. A. Frayser, 602 E. Broad St., Richmond, acting secretary.

Western Retail Implement & Hardware Assn., Jan. 18-20, 1938. Exhibit and meetings at Municipal Auditorium, Kansas City, Mo. Herbert J. Hodge, Abilene, Kan., secretary-treasurer.

West Virginia Hardware Assn., Feb. 21-22, 1938, at Greenbrier Hotel, White Sulphur Springs, W. Va. H. B. Clower, Park Hill, W. Va., secretary-treasurer.

Wisconsin Retail Hardware Assn., Feb. 1-4, 1938. Exhibit and meetings at Milwaukee Auditorium, Milwaukee, Wis. H. A. Lewis, Stevens Point, Wis., executive secretary. George W. Korneley, 3374 N. Green Bay Ave., Milwaukee, Wis., exhibit manager.

THE COLUMBUS DISPATCH

Just Around the Corner is your . . . .

Independent Retail Hardware Dealer

who knows how

To SERVE You BEST . . .

WHEN you want hardware you will get the best merchandise and a really personal service from your independent retail hardware dealer.

Here is a man who owns his own business. His interest is in completely satisfying you, not only at the time of the sale, but with his follow-up services as well.

When you patronize the independent retail dealer you buy from an experienced hardware man who knows how to intelligently serve you.

These stores specialize in nationally known and nationally advertised quality merchandise. Here you get the very products you want. Your independent retail dealer asks no more for quality hardware than you would have to pay for unknown or "just-as-good" brands.

This dealer lives in your immediate community. His interests are the same as yours. He pays taxes, supports the church, the school and all civic activities. The money you spend with him stays right in your community.

Surely the man who is your neighbor, who maintains a complete hardware store, who has your personal interests at heart, will do the most for you.

When You Buy Hardware Get It from an Independent Retail Hardware Store

Published in the Interests of All Independent Retail Hardware Dealers by The Smith Bros. Hardware Co. Exclusive Wholesale Distributors of Quality Hardware Columbus, Ohio

The Smith Bros. Hardware Co., wholesale hardware firm at 580 N. Fourth St., Columbus, Ohio, has embarked upon a newspaper campaign to instill in the minds of the consuming public the many advantages the independent retail hardware dealer has to offer. The advertisement above, which appeared on Nov. 4, is one of a series that will forcefully point out the services rendered as well as the large variety of merchandise handled by the independent hardware store. More of these ads will appear in Columbus newspapers at a future date until all phases of hardware distribution through the independent retail store have been covered.

BURDEN
Horse & Mule Shoes
Hand puddled bar iron and iron rivets
—for over 100 years
THE BURDEN IRON COMPANY
Established 1809
TROY, N. Y.

E-Z CORN POPPER
The Original Rotary Corn Popper
The Popper That Puts The Pop in Pop Corn
Use Any Kind of Heat
ASK YOUR JOBBER
O. S. KEENE MACHINE CO., - ELKHART, IND.

The Original
"HORSESHOE MAGNET" HAMMERS
Steel Forgings, Permanent Magnets. The best magnet hammers on the market. Give long and satisfactory service. The Hammer holds the tack.
ARTHUR R. ROBERTSON
Sole Manufacturer
15 Hathaway Street, Boston, Mass.

DENISTON
***"Lead Seal"* NAILS**
Get samples of this remarkable roofing nail which makes any kind of roofing give better service. Smart dealers everywhere sell it as a profit-maker and good will builder. Note the famous "Lead Seal"—the lead *under the head* and *down the shank* actually *plugs the nail hole with lead!* . . . Ask your jobber or write us for samples and demonstrator blocks.
The DENISTON Company
4840 S. Western Ave. CHICAGO, ILL

Don't Forget
to mention that
you saw it in—
HARDWARE AGE

"WHO MAKES IT?"

Information regarding sources of supply as provided readers of *Hardware Age* by the "Who Makes It?" editor is here presented as an aid to others in the trade who may be seeking the same articles. The inquiries reproduced have been selected because of their general interest to hardware merchants and buyers. This editorial feature in each issue supplements the service rendered by the "Who Makes It?" issue. When writing to the firms mentioned, state that you secured your information from the *Hardware Age* Directory Number.

The "Who Makes It?" issue of Hardware Age enables you to quickly locate sources of supply and helps you answer many questions regarding brand names, products, etc.

Cleveland, O.: Who makes White Rock hoof packing?—Joseph Rericha.

ANSWER: Fiebing Chemical Co., 516 South Second St., Milwaukee, Wis.

* * *

Central Bridge, N. Y.: Who makes the Flash pliers?—Grantier Hdwe. & Imp. Co.

ANSWER: American Plie Rench Corp., 4809 N. Ashland Ave., Chicago, Ill.

* * *

Petersburg, Va.: Who makes the Bendix electric washing machines?—Charles Leonard Hardware Co.

ANSWER: Bendix Home Appliance, Inc., South Bend, Ind.

* * *

Donalsonville, Ga.: Who makes a gun with the name Union Arms Co.?—C. D. Thomas Hardware.

ANSWER: This is a special brand of Bostwick-Braun Co., Toledo, Ohio.

* * *

Goshen, Ind.: Who makes the Mosher grain bag holder?—Curtis Hardware Co., Inc.

ANSWER: Webster Mfg. Co., 4401 Cortland St., Chicago, Ill.

* * *

Cleveland, O.: Who makes the Cinator garbage incinerator?—Geo. Worthington Co.

ANSWER: General Incinerator Co., Alliance, Ohio.

* * *

Quincy, Fla.: Who makes the Alabama Oak coal and wood heater?—I. Kwileckis Sons.

ANSWER: Martin Stove & Range Co., Florence, Ala.

* * *

Glen Rock, Pa.: Who makes the Northland warm air room heater?—L. B. Lau & Son.

ANSWER: J. V. Patten Co., Sycamore, Ill.

* * *

Shaker Heights, O.: Who makes Beetle ware tumblers? — Shaker Heights Hardware Co.

ANSWER: Northern Industrial Chemical Co., 10 Elkins St., Boston, Mass.

* * *

Westport, N. Y.: Who makes the Lane saw mill?—Giroux & Adams.

ANSWER: Lane Mfg. Co., Montpelier, Vt.

* * *

Wadesboro, N. C.: Who makes the Mur-Cop boat paint?—W. C. Hardison.

ANSWER: Westcott, Slade & Balcom, Providence, R. I.

* * *

Nashville, Mich.: Where can we get repairs for the Peerless feed grinder?—C. L. Glasgow Estate.

ANSWER: Dellinger Mfg. Co., Lancaster, Pa.

* * *

Kingston, N. Y.: Who makes the Say-When liquor dispenser?—L. S. Winne & Co.

ANSWER: Continental Say When Corp., 1900 E. 24th St., Cleveland, Ohio.

* * *

Bowling Green, O.: Who makes the Master heavy cast aluminum skillet?—Rappaport's.

ANSWER: Advance Aluminum Castings Corp., 2742 W. 36th Pl., Chicago, Ill.

"SOLID" for 30 YEARS

Because it's solidly made of fine heavy brass. Frequently imitated, never equalled. Fastest seller everywhere. Individually packed, 12 to colorful display carton, as shown.

The BOSTON NOZZLE

BOSTON WOVEN HOSE & RUBBER CO., Cambridge, Mass.

The SIGN *of* SECURITY *in* DEALER PROFITS *and* CUSTOMER SATISFACTION

Makers of fine Padlocks, Night Latches, Door Closers, Key Blanks and Key Cutting Machines.

The Symbol of Supreme Lock Protection

INDEPENDENT LOCK COMPANY

Fitchburg, Mass., U. S. A.

Branches in all principal cities

KNOWN QUALITY *Means Easy Sales . Satisfied Customers*

SHARK BRAND CHISELS

Beware of Imitations

are made in Sweden from finest Charcoal Steel. Sturdy and well made. Discriminating workmen appreciate their known quality. Because of their reputation as dependable tools, they sell with little effort, which means sure profits to you.

● *Stocked by leading jobbers, or write* ●

SANDVIK SAW & TOOL CORPORATION

47 Warren St. New York, N. Y.

740 Washington Ave., North Minneapolis, Minn.

No. 102

TAKE A LOOK!

8 PAGES

BERNARD

PLIERS—PUNCHES
NIPPERS—PRUNERS
and other SPECIAL PURPOSE TOOLS

in the July 29th DIRECTORY ISSUE OF HARDWARE AGE

Also includes BARGAIN SALES UNITS

The WM. SCHOLLHORN CO.
416 CHAPEL ST. NEW HAVEN, CONN.

MAILING LIST

of

WHOLESALE HARDWARE HOUSES

Every One Selling Through Hardware Channels Needs a Copy.

Indispensable for

1 Calling on Hardware Jobbers
2 Your Credit Department
3 Direct Mail Work

It Lists:

SHELF HARDWARE JOBBERS
HEAVY HARDWARE JOBBERS
MILL SUPPLIES DISTRIBUTORS
PLUMBERS' & TINNERS' SUPPLIES JOBBERS
MANUFACTURERS' AGENTS
HARDWARE CHAIN STORES
HARDWARE ASSOCIATION LISTS

PRICE $10. A COPY *Remittance with Order*

HARDWARE AGE VERIFIED LIST

239 W. 39th Street New York, N. Y.

SEAL-KRAFT

SEAL-PAKT—SEAL-POTTED

ROSE BUSHES

SHRUBS, VINES, ETC.

A complete plant service. Full particulars on request.

U. S. Patent 1894506

C. E. WILSON & CO., INC.

Manchester, Conn.

SOUTHERN PACKING PLANT, JACKSONVILLE, TEX.

PORCELAIN ENAMEL INSTITUTE, INC.
612 NORTH MICHIGAN AVENUE • CHICAGO

Please send me, absolutely free, a copy of your new, easy-reading, profusely illustrated sales manual on Porcelain Enamel.

Name_____

Firm_____

Address_____

Classified Opportunities Section...

Use this section to reach **Hardware Manufacturers, Manufacturers' Agents, Jobbers, Jobbers' Salesmen, Retailers and Retail Salesmen**

Classified Advertising Rates

Help Wanted, Accounts Wanted
Business Opportunities
Sales Representatives Wanted
Set solid, maximum, 50 words..... $3.00
All capitals, maximum, 50 words.... $4.00
Each additional word..... .06

Positions Wanted
(Special Rate) set solid, maximum, 50 words ..... .50
Each additional word ..... .01
Allow Seven Words for Keyed Address or Your Address

BOXED DISPLAY RATES
One inch $5.00
Each additional inch 4.00

DISCOUNTS FOR CONSECUTIVE INSERTIONS
4 insertions, 10% off; 8 insertions 15% off. Due to the special rate, these discounts do not apply on Positions Wanted Advertisements.

—•—

REMITTANCE MUST ACCOMPANY ORDER
Send check or money order, *not currency.*

—•—

HARDWARE AGE is published every other Thursday. Classified forms close *13 days* previous to date of publication.

NOTE
Samples of Literature, Merchandise, Catalogs, etc., will not be forwarded.

—•—

Address your correspondence and replies to

HARDWARE AGE
Classified Opportunities Dept.
239 West 39th St., New York City

Help Wanted

WANTED
COST ACCOUNTANT
with at least five years' practical experience in shelf hardware manufacturing.
Address Box C-787
Care of HARDWARE AGE
239 W. 39th Street, New York City

BUILDERS' HARDWARE MAN, EXPERIENCED ARCHITECTS' plans and specifications on all classes building construction. Thorough knowledge leading lines finishing hardware, template work, scheduling and details. Capable department manager. Age 35, married. Available January 15th. Address Box C-780, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

YOUNG MAN WANTED TO DO missionary work in midwest territory introducing a line of screw drivers and other specialty items. Must be energetic, intelligent and capable of eventually contacting jobbers. Should have some experience in retail hardware, preferably tools. Prefer single man who will be able to travel considerably. Salary $20 to $25 per week plus expenses. We furnish car. Address Box C-793, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

Business Opportunities

NEW BUCKET BLADE EXHAUST FANS at prices that sell, motor driven ready to install. 16" at $20.50, 18" at $28.50, 20" at $34.00, 24" at $55.00. Address Box C-802, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

FOR SALE: GENERAL HARDWARE AND Housefurnishing business. Established 85 years in central New Jersey. Good business and location. Owner wishes to retire. Address Box C-821, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

FOR SALE—THIRTY-THREE YEAR old hardware business in the Piedmont section North Carolina. Good clean stock of hardware. Town of two thousand population with low tax rate. Health reason for selling. Good offer for cash. Address Box C-814, care of HARDWARE AGE, 239 West 39th St., New York City or Address Box 1045, Siler City, N. C.

FOR QUICK SALE. One of the most complete stocks of hardware and appliances and paint in Northern Indiana, in town of 100,000, only one other downtown hardware; all new stock; store only three years old; have exclusive sales on all major items, about $35,000 stock, sales about $14,000 per month. Sales have been doubled in 1937 and can be doubled in 1938. Reason for selling, one of the owners leaving city and has other business—over 10,000 feet of space on first floor, 80 feet of front, can get an attractive lease on building or can buy. If interested act quickly. This store will be sold at once. Address Box C-795, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

Business Opportunities

MERCHANDISE WANTED—I BUY FOR cash small or large lots of manufacturers' close outs, jobbers' surpluses and any discontinued items in the hardware and harness line. Write me what you have to offer. Address Harry J. Epstein, 815 Central St., Kansas City, Mo.

TOOL MANUFACTURERS — INVENTOR OF PATENTED WOOD-BORING BRACE OF STANDARD DESIGN WISHES TO DISPOSE OF ALL RIGHTS QUICKLY. CAN BE INSTANTLY CONVERTED AS RATCHET OR CORNER BRACE REDUCING OPERATING SPACE GREATLY. MOTOR ATTACHMENT INCLUDED. INVALUABLE TO ALL WOODWORKERS. PROMPT ANSWERS ASSURED. ADDRESS BOX C-807, CARE OF HARDWARE AGE, 239 WEST 39TH ST., NEW YORK CITY.

Sales Representatives Wanted

FACTORY WANTS SALESMAN NOW CALLING on jobbers, premium buyers, etc., to sell small line moderately priced kitchen cutlery. Southern territory, East of River. Address—Utica Cutlery Co. (Est. 1915) Utica, N. Y.

PROGRESSIVE SHEFFIELD CUTLERY MANUFACTURERS REQUIRE reliable agent for finished carver and table blades. Reply Box ZH763, c.o. Deacon's, 5 St. Mary Axe, London, England.

WANTED—SALESMAN WITH CAR FOR northern New York to call on hardware and general trade. State experience and give references. Address Box C-822, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

ROPE MANUFACTURER WANTS AGENTS IN various Key Cities in the U. S. Reply should state lines handled, territory covered and how often. Unusual low priced item. Opportunity for progressive, experienced salesmen. Address Box C-811, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

MIDDLE WEST CITIES OPEN FOR salesmen calling upon hardware stores and kindred trade. Popular-priced line of paint shelf goods, featuring 10c and 25c lines. Lines backed by the sales of 1500 dealers. Address—Reliance Paint & Varnish Co., 433 Leland Ave., Detroit, Michigan.

SALES REPRESENTATIVE WANTED FOR COMPETITIVELY-priced line of Garden Insecticide sprayers which fit into your common garden hose. This has proven sales appeal with a line of cartridges which insures repeat business. Address all inquiries to Box C-823, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

WANTED—SIDE LINE SALESMEN CALLING on hardware, paint, department and accessory stores and service stations. Remarkable new product developed in 1924 as part of revolutionary new manufacturing process. Now used internationally. In response to popular demand, for the first time we are now packaging a part of our output and offering it to the retail trade as a 25c seller. Virgin territory. Rapid repeat sales. Liberal commissions. Write us fully in strict confidence. Address Lamac Process Co., Dept. 212, Erie, Pa.

Accounts Wanted

Sell Your Products On Pacific Coast

Agent familiar with wholesale and retail hardware trade of Pacific Coast, from Canada to Mexico, seeks agency for additional line to sell to same trade; must be a product of genuine merit. Please reply in first instance to C. E. Turner, c/o Rose, Bechman & Dunn, Attorneys, Commonwealth Building, Pittsburgh, Pa.

MANUFACTURERS' REPRESENTATIVES, TRAVELING FIVE SALESMEN, with volume following, seek line of hardware; builders', cabinet, etc., eastern territory. Address Box C-818, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

MANUFACTURERS' REPRESENTATIVES —COMPLETE SALES, MERCHANDISING and warehouse service covering wholesale and retail hardware trade and kindred trades in California. Address—L. E. Pearson, 444 Market St., San Francisco, Calif.

SALESMAN—31 YEARS OF AGE, married, with 10 years' selling experience, desires hardware or kindred lines with full protection in the state of Florida. State selling policy and full details in first letter. Address Stubbs, 1812 Bayard Place, Jacksonville, Fla.

ESTABLISHED PACIFIC COAST MANUFACTURERS' AGENT desires to represent manufacturers of Hardware and Electrical items for sale to jobbers and dealers. Also want specialty Gadgets. Address J. E. Kevan & Co., 5225 Wilshire Blvd., Los Angeles, Calif.

MANUFACTURER'S REPRESENTATIVES, CONTACTING HARDWARE, mill supply, plumbing trades, can produce volume on additional line. Address Box C-828, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

BUILDERS HARDWARE, HOUSEFURNISHINGS, AND SPORTING Goods Lines wanted by experienced manufacturers' representative, covering states of Nebraska, Iowa, Missouri, and Minnesota, calling regularly on jobbers and large retail trade. Good references furnished. Address Box C-829, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

NEW ENGLAND SALES REPRESENTATIVE SEEKS major line or group of non-conflicting side-lines for that territory. Has own car and has covered New England area for 15 years out of his 22 years' experience selling hardware wholesalers and retailers, department stores, mill supply houses, etc. Has wide acquaintance and appreciation of credit responsibilities in that territory. References upon request. Address Box C-824 care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

Accounts Wanted

SALESMAN SELLING TO HARDWARE AND Woodenware jobbers from Ohio River to Missouri River and from Kentucky to Canadian border, seeks an additional profitable line. Am well established—references good. Address Box C-830, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

MANUFACTURER'S REPRESENTATIVE TRAVELING OREGON-WASHINGTON and Idaho. Calling on jobber and dealer hardware trade. Long experience. Good connections. Desires two or three additional lines. Address Box C-831, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

EXPERIENCED TRAVELING SALESMAN COVERING THE Piedmont Section of North Carolina, is open for a few additional lines of quality merchandise, especially the following: screen wire, bicycles, oil ranges, heaters, locks, hinges, floor coverings and linoleum rugs, lawn mowers and lawn hose, etc. Address Box C-832, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

SALESMAN—AGE 40 REPRESENTING A MANUFACTURER covering a 15-year established following hardware trade in the territory of Eastern Pa., Southern New Jersey, south of Newark, N. J. and the metropolitan area Philadelphia desires an additional connection with a first-class manufacturer on commission basis. Excellent references. Address Box C-810, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

ESTABLISHED MANUFACTURER'S REPRESENTATIVE, WITH LARGE following among jobbers, retailers, department stores, chains, premium firms, throughout Pennsylvania, New Jersey, Delaware, Maryland, and the District of Columbia, desires another line on a strictly commission basis. At present represents two nationally-known manufacturers. Owns car, and is able to finance self. Address Box C-817, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

Positions Wanted

HARDWARE MAN WANTS CHANCE TO take inventory, can write, price and figure, go anywhere. Best of references. Address Box C-816, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

YOUNG MAN, 31 YEARS of AGE, 11 years' experience as buyer of marine hardware, equipment and paints. Best reference. Address Box C-819, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

Positions Wanted

HARDWARE AND PAINT SALESMAN, age 32, single, fifteen years' experience in chain and independent stores, wishes to represent or sell near New York. Reliable reference. Address Box C-775, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

YOUNG MAN 30 YEARS OF age, now employed in responsible sales capacity seeks connection as factory representative or assistant to busy executive. Experienced sales correspondence, plant product. Knowledge of merchandising. Address Box C-826, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

INSIDE SALESMAN WINDOW TRIMMER AND show card writer, with references from several large retailers and jobbers. Prefer store 30 miles from Boston or nearer. Builders' contract man, married with family, past 40, have car; will travel. Address Box C-815, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

ENERGETIC AND AMBITIOUS YOUNG MAN, 22 years old, single, with driver's license desires position. Has had eight years' experience in the hardware, paint, plumbing and electrical supplies and also housefurnishing lines. Address Box C-812, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

POSITION WANTED AS MANAGER OF hardware store in Virginia or West Virginia, if possible. Thirty-one years old, married, with eleven years of hardware experience, four years as manager of hardware store. Would like to make a change by the first of the year. Can give best references from company now employed. Address Box C-827, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

HARDWARE AND PAINT DEALERS ATTENTION! A former chief accountant of a large hardware concern, wishing to build up an accounting practice, offers his services in the evenings to the metropolitan New York City Hardware, Paint, Housefurnishings dealers, rendering a complete accounting service, writing up books, tax matters, etc. Address Box C-825, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

YOUNG MAN, 29 YEARS OF AGE, with 15 years' experience selling retail hardware and paint lines, desires position as traveling salesman with jobber or manufacturer. Have never sold on road. Would like to contact firm to train me for selling in any territory in United States. Salary basis or possibly combination salary and commission with all traveling expenses paid under either arrangement. Best of references. Address Box C-798, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

Positions Wanted

Hardware Personnel

Our files contain applications of several hundred experienced and well trained employees in the hardware industries.

NO CHARGE TO EMPLOYERS FOR THIS SERVICE

If we can be of any help to you, just phone

ASSOCIATED PLACEMENT BUREAU

152 West 42nd Street New York City

WIS. 7-1802, 1803

SALESMAN WELL ACQUAINTED WITH THE hardware trade in Ohio desires connection with well-rated manufacturer selling either through the jobber or direct to the retail trade. Age 42. Married, best of references from last employer. Salary and expenses preferred but good commission basis acceptable. Address Ray F. Marion, 51 No. Remington Rd., Columbus, Ohio.

LOCKSMITH AND REPAIR MAN, 15 years' experience in mastering and repairing all types of locks, door checks, vacuum cleaners and all electrical appliances. For the past 2 years complete charge of repair department in one of Philadelphia's largest hardware stores. Best of references. Address Box C-813, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

YOUNG MAN, FIVE YEARS' EXPERIENCE in factory, mill supplies and hardware; shipping and stock clerk. Willing worker; seeking position in firm with opportunity for advancement. Well acquainted with Metropolitan and Brooklyn areas. Position in either borough satisfactory. Address Box C-820, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

SALESMAN DESIRES POSITION WITH MANUFACTURER, fifteen years' experience establishing jobbing connections calling on paint and hardware trades, definite knowledge of all phases of sales promotion in marketing specialties. Ten years with present concern. Ohio territory working out of Cleveland. Salary or commission, will furnish own transportation. Address Box C-805, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

HARDWARE MAN THOROUGHLY EXPERIENCED IN retail and wholesale hardware, paints, sporting goods and kindred lines desires a position with responsible retail firm. References. Capable of buying, bookkeeping and store management. In late forties and good health. Free to go anywhere. Middle West or South preferred. Salary secondary. Address Box C-668, care of HARDWARE AGE, 239 W. 39th St., N. Y. City.

Only RESULTS Count in Advertising
Let the FIGURES Speak for Themselves

Performance beats promises every time. The Classified Section of Hardware Age has been and is giving the kind of performance that advertisers appreciate.

When business seeks Opportunities, or Sales Representatives, or Accounts, Help or Positions Wanted it speaks through the trade paper that covers the trade and "Delivers the goods."

4,547 Replies to Box Number Advertisements from September, 1936, to August, 1937

prove the *results* in actual figures that Hardware Age secures for its Classified Advertisers. These impressive figures represent a GAIN of 1,041 replies OVER the corresponding period in 1935-'36.

And a still LARGER GAIN of 2,575 replies MORE than the same period the year before. These results—this dominant leadership narrows right down to one conclusion: What the Classified Section of Hardware Age does for *others*—it will do for *you*.

HARDWARE AGE

Classified Opportunities Dept.

239 West 39th Street *(A Chilton Publication)* New York, N. Y.

A.B.C. —*Charter Member*— A.B.P. Inc.

Index To Advertisers...

The Dash (—) Indicates that the Advertisement Does Not Appear in This Issue

A

Alabastine Co. — Aladdin Industries, Inc. — Allen Mfg. Co. — Alliance Mfg. Co. — Aluminum Goods Mfg. Co. — American Chain and Cable Co., Inc. 49 American Chain Division 49 American Fork & Hoe Co., The 35 American Safety Razor Corp. — American Steel & Wire Co. — American Thermos Bottle Co. — American Weekly, The — American Wire Fabrics Corp. — Ames Baldwin Wyoming Co. — Animal Trap Co. of America — Arcade Mfg. Co. — Archer-Daniels-Midland Co. — Arnold Schwinn & Co. — Atkins & Co., E. C. — Atlas Tack Corp. — Automatic Products Co. 61

B

Ballonoff Metal Products Co. — Barcalo Mfg. Co. — Bassick Co., The — Bayer-Semesan Co. — Behr-Manning Corp. — Bemis & Call Co. — Benjamin Franklin Hotel — Bethlehem Steel Company — Birdsell Corp., The — Bissell Carpet Sweeper Co. — Blaisdell Pencil Co. 59 Blake & Johnson Co. — Bommer Spring Hinge Co. — Borg-Warner Corp. — Boston Woven Hose & Rubber Co. 69 Boyle Co., The A. S. — Briddell, Inc., Chas. D. — Brown Corp., W. R. — Brush-Nu Co. — Burden Iron Co., The 67

C

Calbar Paint & Varnish Co. — Carborundum Co., The — Carnegie-Illinois Steel Corp. — Carrollton Metal Prod. Co., The — Champion Hardware Co., The 65 Cheney Hammer Corp., Henry — Chicago Lock Co. — Chicago Spring Hinge Co. — Chicago Wheel & Mfg. Co. — Chisholm-Ryder Co., Inc. 57 Clancy, Inc., J. R. — Claridge Hotel — Clayton & Lambert Mfg. Co. — Clemson Bros. Inc. — Cleveland Chain & Mfg. Co. — Cleveland Wire Spring Co., The — Climax Cleaner Mfg. Co. — Clover Mfg. Co. — Coburn Trolley Track Co. — Coleman Lamp & Stove Co. — Columbian Rope Co. 74 Columbian Vise & Mfg. Co. — Conco Engineering Works — Connecticut Valley Mfg. Co., The — Continental Screw Co. — Continental Steel Corp. — Cook Co., The H. C. — Cooper Mfg. Co. — Corbin Cabinet Lock Co. 59 Corbin Screw Corp., The — Craftsman Wood Service Co. — Crescent Tool Co. — Cross & Co., Inc., W. W. 49 Cyclone Fence Co. —

D

Daisy Mfg. Co. — Damascus Steel Products Corp. — Dazey Churn & Mfg. Co. 63 DeLaval Separator Co., The — Deniston Co., The 67 Devoe & Raynolds Co., Inc. — Diamond Calk Horseshoe Co. — Dietz Co., R. E. — Disston & Sons, Inc., Henry — Domes of Silence 74

E

Eagle Lock Co. — Eberhard Mfg Co. — Eclipse Machine Co., Prophetstown, Ill. — Edlund Co. — Elastic Tip Co. — Empire Electric Co. — Empire Level Mfg. Co. — Everedy Co., The —

F

Farm Journal — Fate-Root-Heath Co., The — Faultless Caster Corp. — Florence Stove Co. 74 Fourco Glass Co. —

G

Gardex, Inc. — Gardiner Metal Co. — Gem Division, American Safety Razor Corp. — Giant Grip Mfg. Corp. — Gibson Electric Refrigerator Corp. — Globe American Corp. — Goldsmith Sons, Inc., The P. — Goodyear Tire & Rubber Co. — Graham Mfg. Co. — Gray & Dudley Co. 1 Greenfield Tap & Die Corp. — Greenlee Tool Co. — Griffin Mfg. Co. — Gulf Refining Company — Gullborg Mfg. Co., John S. —

H

Hamlin Metal Products Co., Inc. — Hampden Mfg. Co., Inc. — Hanson Scale Co. — Harris Hdw. & Mfg. Co., D. P. — Hawkins Company, The — Heller & Co., W. C. — Heller Bros. Co. 37 Hess Co., Inc., The Charles — Hindley Mfg. Co. — Hodell Chain Co. — Holland Mfg. Co., The — Hoppe, Inc., Frank A. — Horton Manufacturing Company — Hotel Benjamin Franklin — Hotel Claridge — Huenefeld Co. — Hutchinson & Co., R. H. —

I

Imperial Bit & Snap Co. — Independent Lock Co. 69 Indiana Steel & Wire Co. — Ingersoll Steel & Disc Div. Borg-Warner Corp. — International Harvester Company, Inc. — Irwin Auger Bit Co., The —

J

Jennings Mfg. Co., The Russell — Jones & Laughlin Steel Corp. 39 Justrite Mfg. Co. —

K

Katzinger Co., Edward — Keene Machine Co., O. S. 67 Kees Mfg. Co., F. D. — Kelvinator Division, Nash-Kelvinator Corp. — Keuffel & Esser Co. — Keystone Steel & Wire Co. — Knapp-Monarch Co. — Koral Mfg. Co. —

L

Lamson & Sessions Co. The — Landers, Frary & Clark — Leonard Refrigerator Div., Nash-Kelvinator Corp. — Lincoln Engineering Co. — Lincoln-Schlueter Floor Machine Co. — Lockwood Hdwe. Mfg. Co. — Lufkin Rule Co., The —

M

McCambridge & McCambridge Co., The — McCormick Sales Co., The Red Arrow Div. — McKay Company, The — McKinney Mfg. Co. 74 McLaughlin, Gormley, King Co. — Marble Arms & Mfg. Co. — Martin-Senour Co., The — Master Lock Co. — Mayhew Steel Products, Inc. — Metal Sponge Sales Corp. — Mid-State Steel & Wire Co. — Miller, Inc., Robert E. 74 Millers Falls Co. — Minnesota Mining & Mfg. Co. — Monarch Metal Weatherstrip Corp. — Monmouth Stamping Co. — Moore Push-Pin Co. 74 Moto-Mower Co., The — Murphy's Sons Co., Robert — Murray Ohio Mfg. Co., The — Myers & Bro. Co., The F. E. 4

N

Nash-Kelvinator Corp. — National Enameling & Stamping Co. — National Mfg. Co. 74 National Pressure Cooker Co. — National Screw & Mfg. Co. — New York Wire Cloth Co. — Nicholson File Co. 44-45 Norcross & Sons, C. S. — Norge Division Borg-Warner Corp. — Northwestern Barb Wire Co. — Norton Abrasives — Norton Door Closer Co. — Nott Mfg. Co. —

O

Ohio Stove Pipe & Mfg. Co. — Oliver Iron & Steel Co. — Osborn Mfg. Co., The 74

P

Patent Cereals Co. — Patent Novelty Co. — Peck, Stow & Wilcox Co. — Pecora Paint Co. — Peerless Novelty Co. — Perfection Stove Co. — Phoenix Mfg. Co. — Pittsburgh Plate Glass Co., (Paint Div.) — Pittsburgh Plate Glass Co., (Pennvernon Div.) — Pittsburgh Plate Glass Co., (Store Fronts) — Pittsburgh Steel Co. — Plastic Wood Div. of The A. S. Boyle Co. — Plumb, Inc., Fayette R. — Porcelain Enamel Institute, Inc. 69 Premax Products 57 Progressive Mfg. Co., The — Prospectus Mfg. Co. — Puritan Cordage Mills —

R

Raybestos-Manhattan, Inc. (Raybestos Div.) — Ray-O-Vac Co. — Red Jacket Mfg. Co. — Republic Steel Corp. — Republic Steel Corp. (Agricultural Div.) — Republic Steel Corp. (Upson Nut Div.) — Reynolds Wire Co. — Rich Pump & Ladder Co., The 59 Richards-Wilcox Mfg. Co. — Ridge Tool Co., The 74 Robertson, Arthur R. 67 Rochester Sash Balance Co., Inc. — Rogers Isinglass & Glue Co. — Russell, Burdsall & Ward Bolt & Nut Co. — Ryerson & Son, Inc., Jos. T. 61

S

Samson Cordage Works — Sanderson Bros. & Newbold, Ltd. — Sand's Level & Tool Co. — Sandvik Saw & Tool Corp. 69 Save Electric Corp. 53 Schalk Chemical Co. — Schollhorn Co., The Wm. 69 Shapleigh Hardware Co. 70 Sheffield Bronze Powder & Stencil Co., Inc. — Sherman Mfg. Co., H. B. — Sherwin-Williams Co., The — Signal Elec. Mfg. Co. — Silex Co., The 41 Simplex Mfg. Co. — Smith, Inc., Landon P. 75 Smith & Son, Seymour — Soss Mfg. Co. — Stanley Rule & Level Plant — Stanley Works, The — Star Heel Plate Co. — Stearns & Co., E. C. — Stensgaard & Asso., Inc., W. L. —

T

Taylor Instrument Companies — Taylor, Lowenstein & Co. — Technical Glass Co., Inc. — Three-in-One Div. of The A. S. Boyle Co. — Tobacco By-Products & Chemical Corp., Inc. — Trico Fuse Mfg. Co. — Toro Mfg. Corp. — Triplewear Brake Linings Corp. — Triplex Screw Co., The — Tucker Duck & Rubber Co. — Turner Brass Works, The — Turner, Day & Woolworth Handle Co. —

U

Union Fork & Hoe Co., The — Union Hardware Co. 8 United Royalties Corp. — United Stove Co. — U. S. Rubber Co. — U. S. Steel Corp. — Utica Drop Forge & Tool Corp. —

V

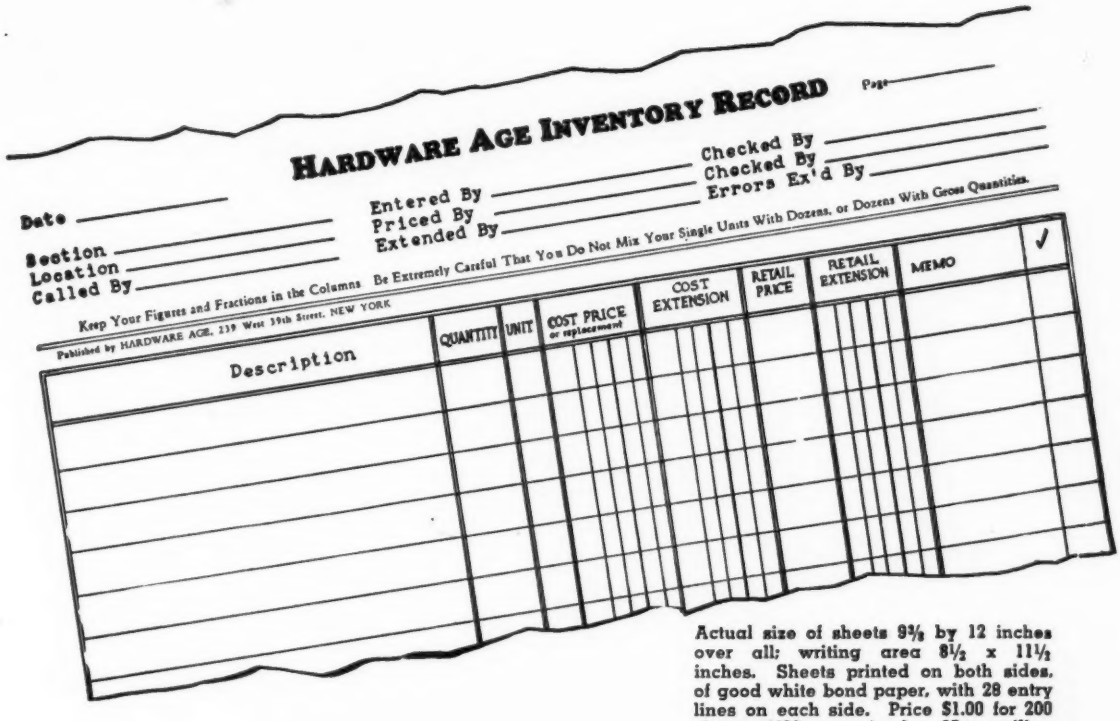
Vaughan Novelty Mfg. Co. —

W

Washburn Co., The — Westinghouse Electric & Mfg. Co. — Wickwire Brothers 59 Wickwire Spencer Steel Co. — Wilson & Co., Inc., C. E. 69 Winchester Repeating Arms Co. — Witt Cornice Co. — Wood Shovel & Tool Co. 6 Wooster Brush Co. 2 Wright Steel & Wire Co., G. F. —

Y

Yale & Towne Mfg. Co., The 3



Actual size of sheets 9⅜ by 12 inches over all; writing area 8½ x 11½ inches. Sheets printed on both sides, of good white bond paper, with 28 entry lines on each side. Price $1.00 for 200 sheets (400 pages) plus 25¢ mailing charge.

Simplify Your Stock Taking with the WHITE CONDENSED HARDWARE AGE INVENTORY FORM

To make your annual inventory taking an easier, surer job, we asked 1,000 leading retail hardware dealers to help us design a new HARDWARE AGE Inventory Record Sheet.

From the many suggestions we received, a new sheet was designed—in a new size and form to sell at a new low price—200 sheets for only $1, plus 25c mailing charge. As these sheets are printed on both sides of good white bond paper, this means you really get 400 pages of inventory record sheets. Each page has room for 28 items. Your $1.25 investment provides inventory space for 11,120 items.

During the past years, thousands of retail hardware dealers and wholesalers have used millions of HARDWARE AGE Inventory Sheets because they found them simple, convenient and handy to use. This new form is the best ever—it's even more simple, more convenient and easier to use. Our entire effort was directed toward making your annual inventory taking an easier and surer undertaking.

These new HARDWARE AGE Inventory Sheets will fit the HARDWARE AGE Inventory Sheet Binders which are used by thousands of dealers who reorder their HARDWARE AGE Inventory Sheets year in and year out.

Due to the exceptional low price at which these sheets are sold and which applies to the United States and its possessions only, please have your money order or check accompany your order. *Use the coupon below to order your supply today and make your inventory taking this year easier and surer with these sheets.*

USE THIS COUPON

HARDWARE AGE
239 West 39th Street, New York, N. Y.
Gentlemen:

Here is my $..... . Please send me .....hundred white HARDWARE AGE Inventory Sheets (200 for $1.00, plus 25c mailing charge). Also send me .....Binders (50c each). Send these to me by return mail.

NAME ..... FIRM NAME .....

ADDRESS ..... CITY ..... STATE .....

FLORENCE

OIL RANGES • GAS RANGES • OIL HEATERS • RANGE BURNERS

FLORENCE GARDNER, MASS. STOVE CO. KANKAKEE, ILL.

NEW YORK, CHICAGO, BOSTON, ATLANTA, DALLAS AND SAN FRANCISCO

OSBORN

CONCENTRATE ON··

Osborn Brushes

THE OSBORN MANUFACTURING COMPANY CLEVELAND, OHIO

OSBORN

McKINNEY

MANUFACTURING CO. PITTSBURGH, PA.

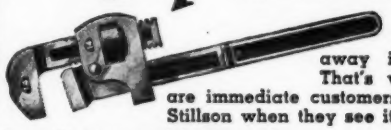
PREFERRED FROM COAST TO COAST

A PROFITABLE LINE FOR YOU

DESIGNERS *and* MANUFACTURERS *of* BUILDERS HARDWARE

This Safety MAKES SALES

FOR THE IMPROVED STILLSON



Cone-coil safety springs are tucked away inside the housing. That's why so many users are immediate customers for the IMPROVED Stillson when they see it.

For new life in your wrench department, ask your Jobber about the IMPROVED Stillson.

THE RIDGE TOOL CO. ELYRIA, OHIO, U. S. A.

Improved STILLSON BY RIDGE TOOL

National HARDWARE

NATIONAL MFG. CO.

RECOGNIZED everywhere as a product of quality. A complete line to meet every building requirement. Send for illustrated catalog and join the ranks of National dealers.

National Manufacturing Co.

STERLING ·: ILLINOIS

COLUMBIAN *Tape-Marked* ROPE

To completely satisfy your customers, ask your jobber for COLUMBIAN *Tape-Marked.* You can tell it by the *Tape-Marker* in all sizes and the red, white and blue surface markers in ¾ inch diameter and larger.

Columbian Rope Company, Auburn, *"The Cordage City"*, N. Y.

WATERPROOFED - GUARANTEED

Genuine DOMES of SILENCE

SLIDE SILENTLY - SOFTLY - SMOOTHLY

40c SET - 10c SET - 10c SET

SAVE FURNITURE & FLOORS-CREATE QUIET

Name "Domes of Silence" on each genuine Glide.

4 TO A SET

Domes of Silence Rubber Cushion Glides

For Tile, Marble, Cement and Bathroom Floors. Noiseless. Sizes for metal beds, wood beds, large chairs and all furniture.

Ask your Jobber. If he is not supplied write to

DOMES of SILENCE, Inc., 35 Pearl St., N. Y. C.

FREE! Compact, all-metal, revolving display cabinet with each assortment of 72 packs.

Your town is full of Bulletin Boards *with announcements attached by . . . .*

MOORE Push-Pins

This single use provides an enormous outlet for MOORE Push-Pins and Hangers, yet it is but one of the hundreds that keep sales steadily moving upward . . . especially in stores displaying the handsome cabinet shown here. It contains full assortments of both MOORE Push-Pins and

MOORE Pushless Hangers

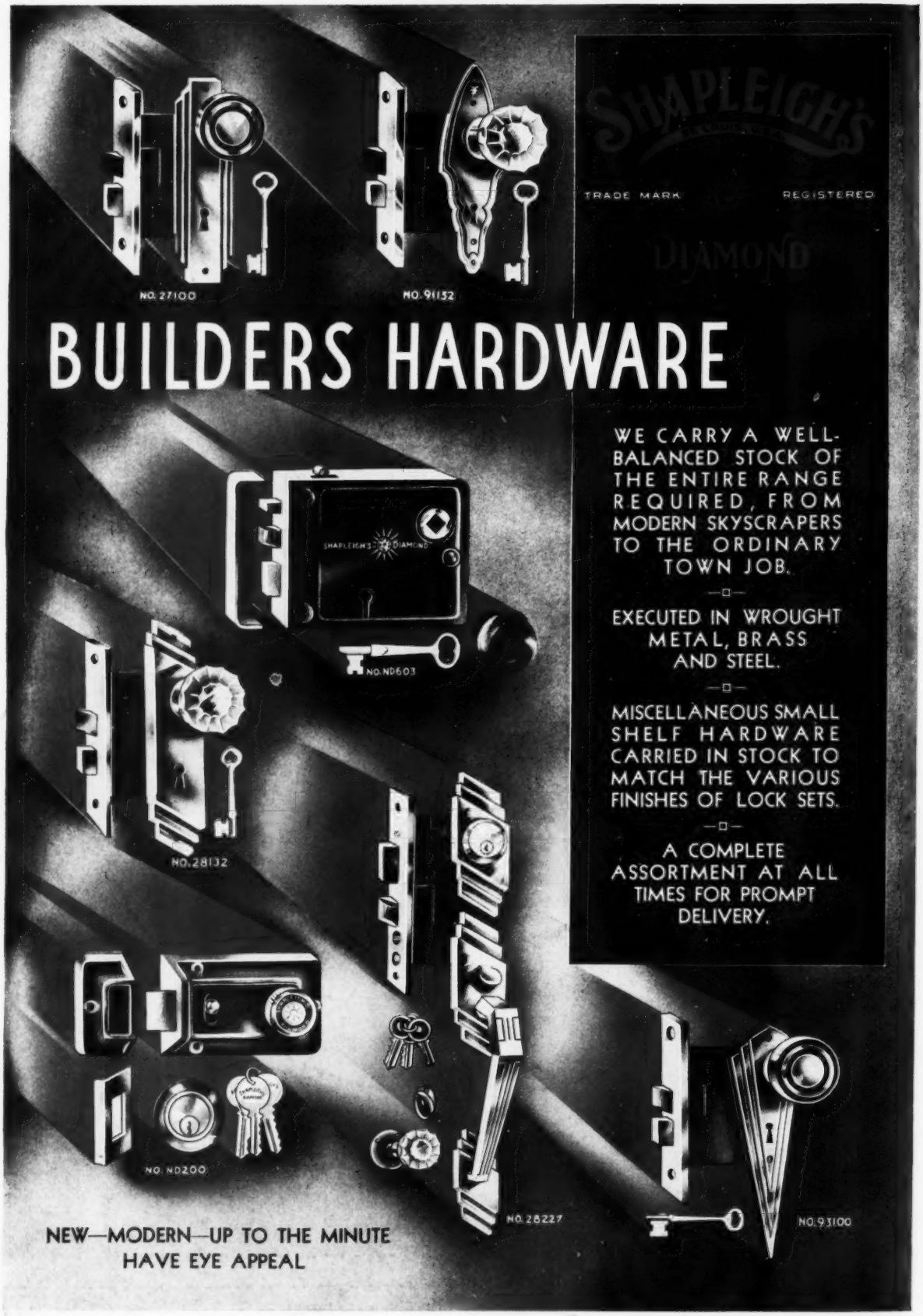
Order from your jobber

MOORE PUSH-PIN COMPANY

Manufacturers of MOORE Push-Pins and MOORE Pushless Hangers

113-125 Berkley Street, Philadelphia, Pa.

"Red Devil"
No. 024
"It's ALL in the WHEEL"
GLASS CUTTERS • GLAZIERS POINTS • WOOD SCRAPERS
GLASS PLIERS • SAND PAPER AND STEEL WOOL HOLDERS
PUTTY KNIVES • WALL SCRAPERS • GLAZIERS SUNDRIES
WEDGES • LAWN SPRINKLERS • POT CLEANERS
LANDON P. SMITH, INC., IRVINGTON, N. J., U. S. A.


SHAPLEIGH'S
TRADE MARK REGISTERED
DIAMOND
NO. 27100
NO. 91132
BUILDERS HARDWARE
WE CARRY A WELL-BALANCED STOCK OF THE ENTIRE RANGE REQUIRED, FROM MODERN SKYSCRAPERS TO THE ORDINARY TOWN JOB.
EXECUTED IN WROUGHT METAL, BRASS AND STEEL.
MISCELLANEOUS SMALL SHELF HARDWARE CARRIED IN STOCK TO MATCH THE VARIOUS FINISHES OF LOCK SETS.
A COMPLETE ASSORTMENT AT ALL TIMES FOR PROMPT DELIVERY.
SHAPLEIGH'S DIAMOND
NO. ND603
NO. 28132
NO. ND200
NO. 28227
NO. 93100
NEW—MODERN—UP TO THE MINUTE
HAVE EYE APPEAL

"DIAMOND EDGE IS A QUALITY PLEDGE"

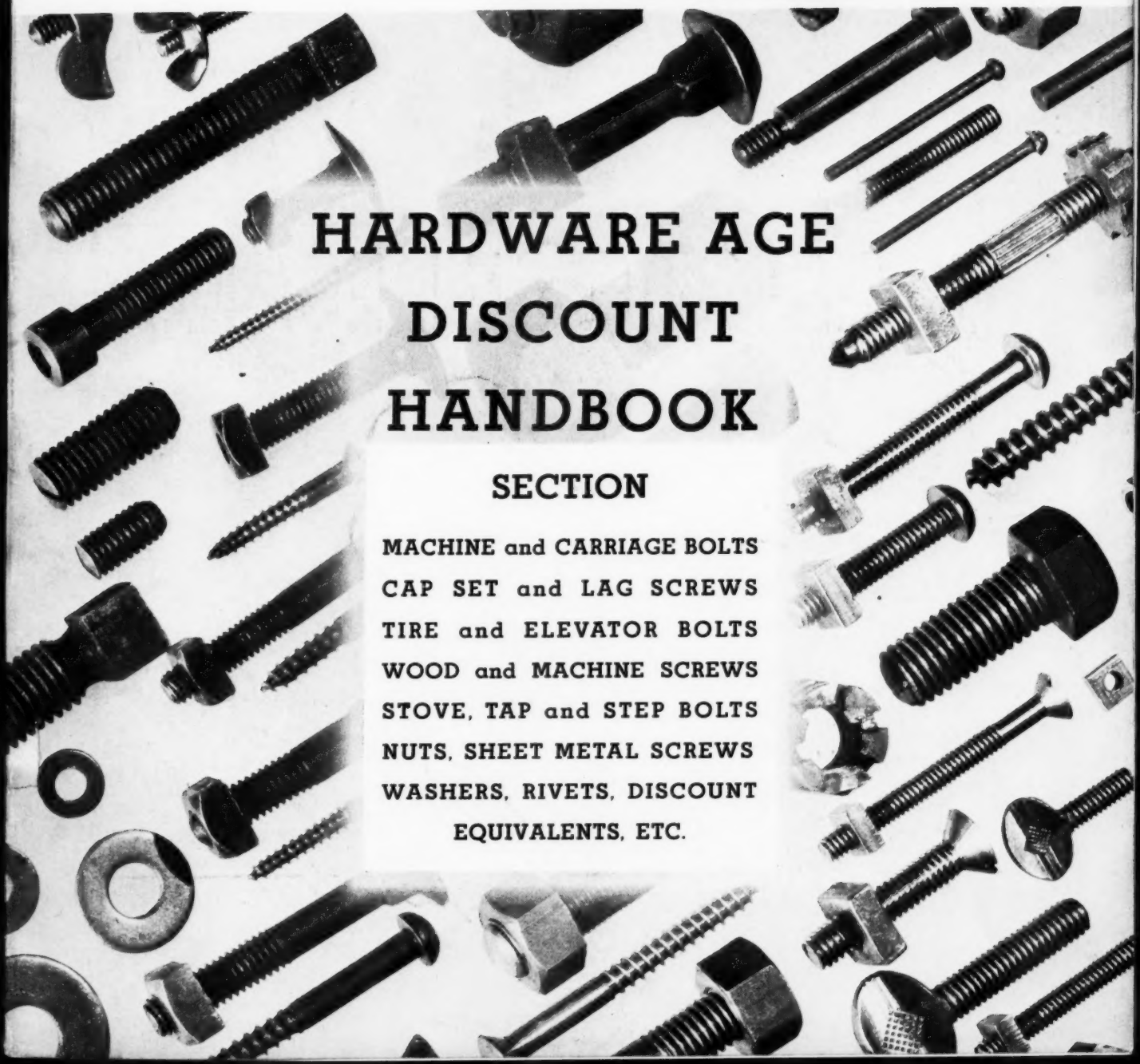
TS200
H26
v.140
pt.2

LIBRARY

HARDWARE AGE

Section Two

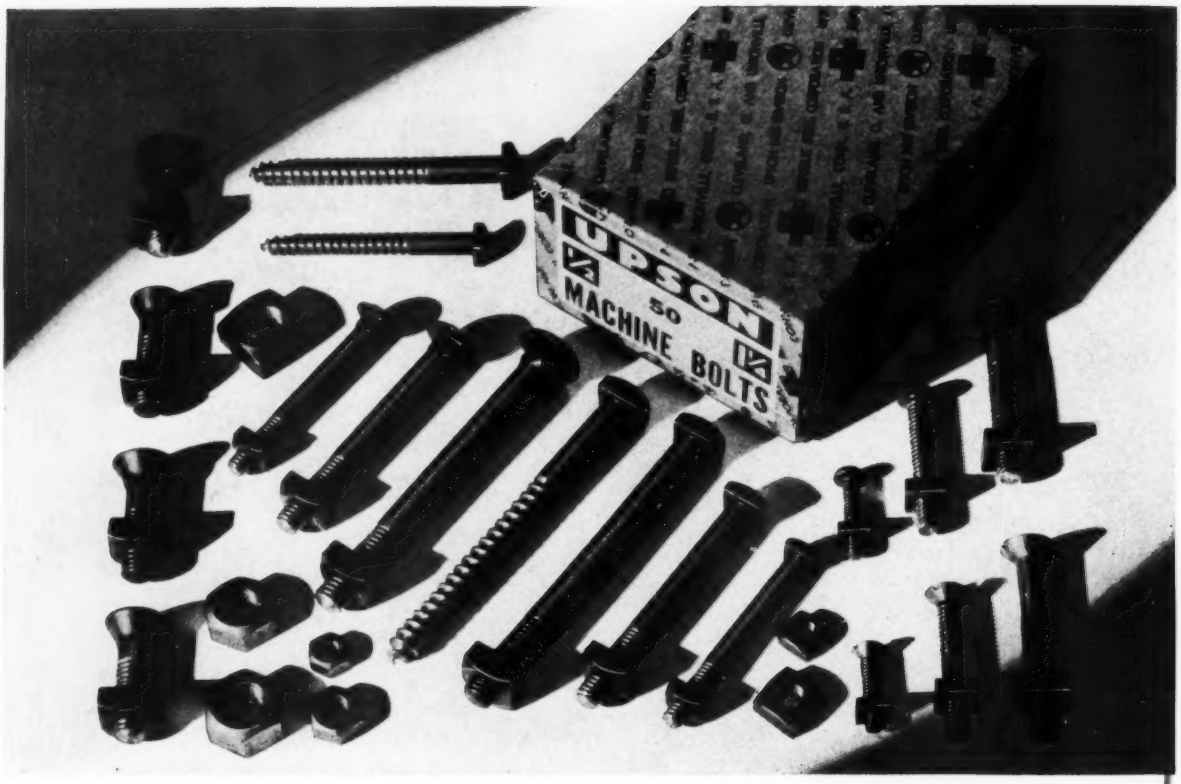
December 30, 1937



HARDWARE AGE DISCOUNT HANDBOOK

SECTION

MACHINE and CARRIAGE BOLTS
CAP SET and LAG SCREWS
TIRE and ELEVATOR BOLTS
WOOD and MACHINE SCREWS
STOVE, TAP and STEP BOLTS
NUTS, SHEET METAL SCREWS
WASHERS, RIVETS, DISCOUNT
EQUIVALENTS, ETC.



SPEAKING OF RESALE

● Republic Upson Quality Bolts, Nuts, Lag Screws and other items are made to sell — not once, but over and over again.

Hardware buyers cannot help but notice how the full, square heads and nuts hold wrenches — prevent slipping and skinned knuckles. They discover the true size and strength of the shanks. They observe how accurate and free-running are the threads.

Once a customer uses Republic Upson Quality headed and threaded items, he will come back to you for his future needs. Ask your jobber for Upson products — quality products that sell and resell, and bring increased profits to you.

UPSON
REPUBLIC
STEEL

Bolts and nuts in all standard and special shapes, sizes, alloys and finishes. Standard and special rivets of all kinds. Wire rope clips. Turnbuckles. Automotive and railroad special items. Headed and threaded products for every use.

BOLT AND NUT DIVISION

Republic Steel
Corporation

GENERAL OFFICES . . . CLEVELAND, OHIO

–FOREWORD–

HARDWARE AGE presents this handbook of discount tables to eliminate the troublesome and time-taking details of figuring net costs and establishing profitable resale prices on wood screws, bolts, rivets, lock washers, etc. The use of these tables, conveniently arranged by types and sizes, should encourage all members of the store staff to quote the same prices on identical quantities, sizes and kinds of bolts, nuts, screws, etc. These charts eliminate guesswork in determining both cost and selling prices. Sufficient range of percentage discounts are provided to meet the usual requirements of most wholesale and retail hardware firms.

This book brings up-to-date an editorial feature that appeared in serial form in HARDWARE AGE several years ago—a feature that was enthusiastically received by the entire hardware trade. Drastic revisions in both list prices and discounts have made these original charts obsolete and have inspired hundreds of our readers to request revised charts based on current lists and prevailing discounts at which bolts, nuts, screws, etc., are bought and sold. These requests continued in such number that the need of this book was definitely established.

Until recently it was not considered practical to undertake a handbook of this type. Uncertainty of prices and business conditions threatened continued changes that would lessen the value of such a compilation. Today there is reasonable stability in the market as far as list prices are concerned and the shifts in discounts are taken care of through the broadened range of percentages used in these charts.

More than one thousand separate calculations are represented on many single pages and more than seventy pages of charts are included in this volume. Every effort has been made to provide a complete, usable and handy price reference manual in the buying and selling of bolts, nuts, screws, rivets, washers, etc.

This useful handbook is a further service to the hardware trade contributed by HARDWARE AGE—another plus service for our readers without extra cost to them. It is sent with our compliments to help hardware men realize greater profits in their selling of these basic items.

The index, on the next page, enables the reader to locate quickly any desired discount table that can be used for figuring both cost and selling prices.

The preparation of this handbook was supervised by the Editorial Staff of HARDWARE AGE, assisted by three skilled, hardware trained Comptometer operators using new electrically operated Comptometer machines furnished by The Felt & Tarrant Mfg. Co., New York City.

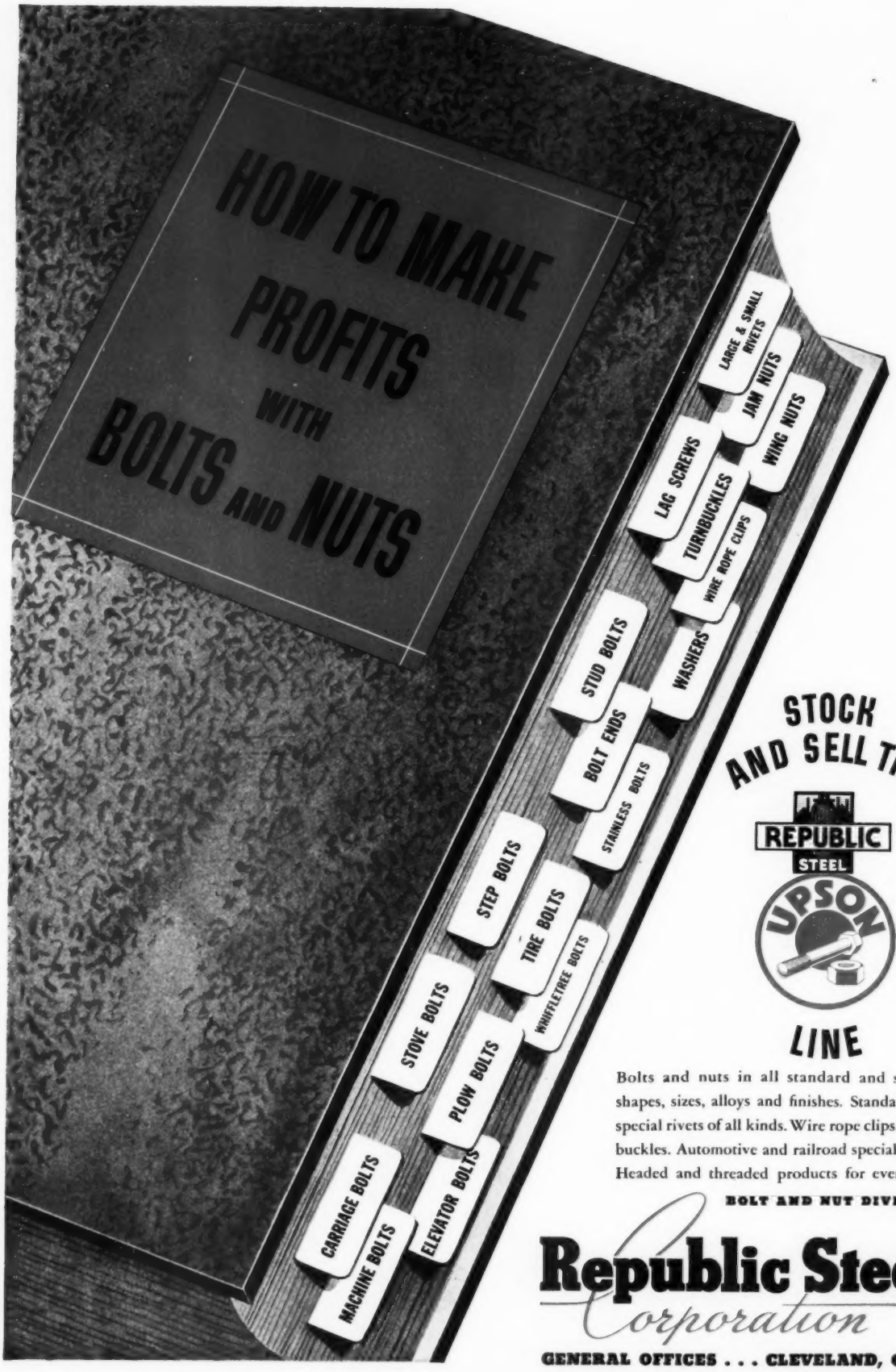
Our appreciation is extended to the group of manufacturers whose advertising in this handbook made its publication possible.

The contents of this book are copyrighted (1937) by the Chilton Co., Inc., publishers of HARDWARE AGE.

—THE PUBLISHERS

IMPORTANT!

All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.



STOCK AND SELL THE

REPUBLIC STEEL UPSON

LINE

Bolts and nuts in all standard and special shapes, sizes, alloys and finishes. Standard and special rivets of all kinds. Wire rope clips. Turnbuckles. Automotive and railroad special items. Headed and threaded products for every use.

BOLT AND NUT DIVISION

Republic Steel Corporation

GENERAL OFFICES . . . CLEVELAND, OHIO

HARDWARE AGE

Published Every Other Thursday

Owned and Published by

CHILTON COMPANY
(Incorporated)

Publication Offices
Chestnut and 56th Sts.,
Philadelphia, Pa.

Editorial and Executive Offices
239 West 39th St.,
New York, N. Y.

VOL. 140, NO. 13 — *December 30, 1937* — SECTION 2

Discount Handbook Section

DISCOUNT TABLES INDEX

GENERAL DATA

Decimal Equivalents—Conversion Table 89
Nets of Combination Discounts 7
Thread Micrometer Readings of U.S.S. Form Thread 70
Wire Gauge Standards 97

BOLTS

Carriage, Cut Thread 8
Carriage, Rolled Thread 12
Cultivator 27
Elevator 80
Machine, Cut Thread 15
Machine, Rolled Thread 24
Plow 27
Step 84
Stove 48
Tap 87
Tire 82

PINS

Brass Escutcheon 35
Cotter, Steel 42

NUTS

Cap, Cold Forged Brass 89
Common Nuts, Square and Hexagon 36
Dimensions and Threads Per Inch 86
Machine Screw, Steel and Brass, Square and Hexagon 46
Machine Screw, Hexagon Brass—Double Chamfered 47
Semi-Finished Hexagon Tapped 30
Stove Bolt, Square 47
Wing Nuts, Cold Forged 69

RIVETS

Solid Steel 90
Tinners and Coopers 95

SCREWS

Caps and Set—Weights and Packing 81
Cap, Fillister Head 75
Cap, Flat Head 74
Cap, Hexagon Head 71
Lag 37
Machine, Brass 41
Machine, Steel 44
Sheet Metal, Type A 62
Sheet Metal, Type Z 66
Set, Square Head 77
Thumb, Cold Forged 96
Wood, Steel 50
Wood, Brass 57

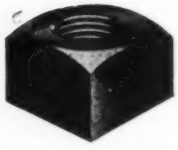
WASHERS

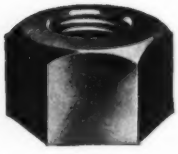
Brass 97
Iron, Malleable 98
Machinery Bushing 96
Riveting Burrs 98
S.A.E. 98
Square 96
Spring 32
Spring, Lock 34
Steel, Light 96
Wrought 98

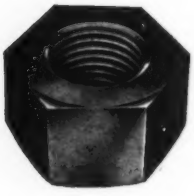
ADVERTISERS' INDEX

Allen Mfg. Co. 29
American Equipment Corp. 21
Boss Bolt & Nut Co. 31
American Screw Corp. 58
Bethlehem Steel Co. 18
Clark Bros. Bolt Co. 29
Continental Screw Co. 51
Corbin Screw Corp., The 54
Gary Screw & Bolt Co. 21
Hassall, Inc., John 35
Heiz & Heiz, Inc. 63
Lamson & Sessions Co., The 16-17
Master Products Co., The 99
Milton Mfg. Co., The 6
National Screw & Mfg. Co., The 39
Oliver Iron and Steel Corp. 25
Parker-Kalon Corp. 65, 67
Pittsburgh Screw & Bolt Co. 21
Positive Lock Washer Co. 33
Republic Steel Corp. 2, 4
Russell, Burdsall & Ward Bolt & Nut Co. 100
Sheffield Steel Corp. 13
Townsend Co. 91
Triplex Screw Co., The 9
Wasmer Bolt & Nut Co. 70
Wrought Washer Mfg. Co. 97

(Copyright 1937 by Chilton Company (Inc.)







"MILTON" PRODUCTS

BOLTS (M) **NUTS**

Take Their Place In the "Bolt & Nut Handbook" Because, Like Its Tables

THEY MEET THE TEST FOR DEPENDABILITY

Today, next week, next year—the lines and figures chronicle the same results.

Today, next week, next year—Milton Bolts and Nuts give uniform service.

WHY?

Because of the care given to the selection of the steel.

Because of the exacting conditions under which they are manufactured.

Because of the emphasis placed upon their inspection.

Because of the recognition of sturdy cartons and attractive labels as package essentials.

Because of shipments made to conform with trade needs.

Because we count our customers our friends, and never go back on a friend.

"Milton" Maxims

Reliability is an inherent quality of "Milton" Bolts and Nuts. Milton's growing reputation is a natural appraisal of values. Milton products endure because they meet the test.

Send for New Catalog and Prices covering the complete line.

THE MILTON MFG. CO.

MILTON, PENNSYLVANIA

NETS OF COMBINATION DISCOUNTS

	25	30	35	40	42½	45	47½	50	52½	55	57½	60	
5	.7125	.665	.6175	.57	.54625	.5225	.49875	.475	.45125	.4275	.40375	.38	5
5-2½	.69469	.64838	.60206	.55575	.53259	.50944	.48628	.46313	.43997	.41681	.39366	.3705	5-2½
5-5	.67688	.63175	.58663	.5415	.51894	.49638	.47381	.45125	.42869	.40613	.38356	.361	5-5
5-5-2½	.65995	.61596	.57196	.52796	.50596	.48397	.46197	.43997	.41797	.39597	.37397	.35198	5-5-2½
7½	.69375	.6475	.60125	.555	.53188	.50875	.48563	.4625	.43938	.41625	.39313	.37	7½
7½-2½	.67641	.63131	.58622	.54113	.51858	.49603	.47348	.45094	.42839	.40584	.3833	.36075	7½-2½
7½-5	.65906	.61513	.57119	.52725	.50528	.48331	.46134	.43938	.41741	.39544	.37347	.3515	7½-5
7½-5-2½	.64259	.59975	.55961	.51407	.49265	.47123	.44981	.42839	.40697	.38555	.36413	.34271	7½-5-2½
10	.675	.63	.585	.54	.5175	.495	.4725	.45	.4275	.405	.3825	.36	10
10-2½	.65813	.61425	.57038	.5265	.50456	.48263	.46069	.43875	.41681	.39488	.37294	.351	10-2½
10-5	.64125	.5985	.55575	.513	.49163	.47025	.44888	.4275	.40613	.38475	.36338	.342	10-5
10-5-2½	.62522	.58354	.54186	.50018	.47933	.45849	.43765	.41681	.39597	.37513	.35429	.33345	10-5-2½
10-7½	.62438	.58275	.54113	.4995	.47869	.45788	.43706	.41625	.39544	.37463	.35381	.333	10-7½
10-7½-2½	.60877	.56818	.5276	.48701	.46672	.44643	.42614	.40584	.38555	.36526	.34497	.32468	10-7½-2½
10-7½-5	.59316	.55361	.51407	.47453	.45475	.43498	.41521	.39544	.37567	.35589	.33612	.31635	10-7½-5
10-7½-5-2½	.57833	.53977	.50122	.46266	.44338	.42411	.40483	.38555	.36627	.347	.32772	.30844	10-7½-5-2½
10-10	.6075	.567	.5265	.486	.46575	.4455	.42525	.405	.38475	.3645	.34425	.324	10-10
10-10-2½	.59231	.55283	.51334	.47385	.45411	.43436	.41462	.39488	.37513	.35539	.33564	.3159	10-10-2½
10-10-5	.57713	.53865	.50018	.4617	.44246	.42323	.40399	.38475	.36551	.34628	.32704	.3078	10-10-5
10-10-5-2½	.5627	.52518	.48768	.45016	.4314	.41264	.39389	.37513	.35637	.33762	.31886	.30011	10-10-5-2½
10-10-7½	.56194	.52448	.48701	.44955	.43082	.41209	.39336	.37463	.35589	.33716	.31843	.2997	10-10-7½
10-10-7½-2½	.54789	.51136	.47484	.43831	.42005	.40179	.38352	.36526	.347	.32873	.31047	.29221	10-10-7½-2½
10-10-7½-5	.53384	.49825	.46266	.42707	.40928	.39149	.37369	.35589	.3381	.3203	.30251	.28472	10-10-7½-5
10-10-7½-5-2½	.52049	.4858	.45109	.4164	.39905	.3817	.36435	.347	.32965	.3123	.29495	.2776	10-10-7½-5-2½
10-10-10	.54675	.5103	.47385	.4374	.41918	.40095	.38273	.3645	.34628	.32805	.30983	.2916	10-10-10
10-10-10-10	.4921	.4593	.4265	.3937	.37725	.3609	.34445	.328	.31164	.2952	.27884	.2624	10-10-10-10

	62½	65	67½	70	72½	75	77½	80	82½	85	87½	90	
5	.35625	.3325	.30875	.285	.26125	.2375	.21375	.19	.16625	.1425	.11875	.095	5
5-2½	.34734	.32419	.30103	.27788	.25472	.23156	.20841	.18525	.16209	.13894	.11578	.09263	5-2½
5-5	.33844	.31588	.29331	.27075	.24819	.22563	.20306	.1805	.15794	.13538	.11281	.09025	5-5
5-5-2½	.32998	.30798	.28598	.26398	.24198	.21998	.19799	.17599	.15399	.13199	.10999	.08799	5-5-2½
7½	.34688	.32375	.30063	.2775	.25438	.23125	.20813	.185	.16188	.13875	.11563	.0925	7½
7½-2½	.3382	.31566	.29311	.27056	.24802	.22547	.20292	.18038	.15783	.13528	.11273	.09019	7½-2½
7½-5	.32953	.30756	.28559	.26363	.24166	.21969	.19772	.17575	.15378	.13181	.10984	.08788	7½-5
7½-5-2½	.32129	.29987	.27845	.25703	.23561	.2142	.19278	.17136	.14994	.12852	.1071	.08568	7½-5-2½
10	.3375	.315	.2925	.27	.2475	.225	.2025	.18	.1575	.135	.1125	.09	10
10-2½	.32906	.30713	.28519	.26325	.24131	.21938	.19774	.1755	.15356	.13163	.10969	.08775	10-2½
10-5	.32063	.29925	.27788	.2565	.23513	.21375	.19238	.171	.14963	.12825	.10688	.0855	10-5
10-5-2½	.31261	.29177	.27093	.25009	.22925	.20841	.18757	.16673	.14588	.12504	.1042	.08336	10-5-2½
10-7½	.31219	.29138	.27056	.24975	.22894	.20813	.18731	.1665	.14569	.12488	.10406	.08325	10-7½
10-7½-2½	.30438	.28409	.2638	.24351	.22321	.20292	.18263	.16234	.14205	.12175	.10146	.08117	10-7½-2½
10-7½-5	.29658	.27681	.25703	.23726	.21749	.19772	.17795	.15818	.1384	.11863	.09886	.07909	10-7½-5
10-7½-5-2½	.28916	.26989	.25061	.23133	.21205	.19278	.1735	.15422	.13494	.11567	.09639	.07711	10-7½-5-2½
10-10	.30375	.2835	.26325	.243	.22275	.2025	.18225	.162	.14175	.1215	.10125	.081	10-10
10-10-2½	.29616	.27641	.25667	.23693	.21718	.19744	.17769	.15795	.13821	.11846	.09872	.07898	10-10-2½
10-10-5	.28856	.26933	.25009	.23085	.21161	.19238	.17314	.1539	.13466	.11543	.09619	.07695	10-10-5
10-10-5-2½	.28135	.26259	.24384	.22508	.20632	.18757	.16881	.15005	.1313	.11254	.09378	.07503	10-10-5-2½
10-10-7½	.28097	.26224	.24351	.22478	.20604	.18731	.16858	.14985	.13112	.11239	.09366	.07493	10-10-7½
10-10-7½-2½	.27394	.25568	.23742	.21916	.20089	.18263	.16437	.1461	.12784	.10958	.09131	.07305	10-10-7½-2½
10-10-7½-5	.26692	.24913	.23133	.21354	.19574	.17795	.16015	.14236	.12456	.10677	.08897	.07118	10-10-7½-5
10-10-7½-5-2½	.26025	.2429	.22555	.2082	.19085	.1735	.15615	.1388	.12145	.1041	.08675	.0694	10-10-7½-5-2½
10-10-10	.27338	.25515	.23693	.2187	.20048	.18225	.16403	.1458	.12758	.10935	.09113	.0729	10-10-10
10-10-10-2½	.26654	.24877	.231	.21323	.19546	.17769	.15592	.14216	.12439	.10662	.08885	.07108	10-10-10-2½
10-10-10-5	.25971	.24239	.22508	.20777	.19045	.17314	.15582	.13851	.1212	.10388	.08657	.06926	10-10-10-5
10-10-10-5-2½	.25321	.23633	.21945	.20257	.18569	.16881	.15193	.13505	.11817	.10129	.08441	.06752	10-10-10-5-2½
10-10-10-10	.24604	.22964	.21323	.19683	.18043	.16403	.14762	.13122	.11482	.09842	.08201	.06561	10-10-10-10
10-10-10-10-5	.23374	.21815	.20257	.18699	.17141	.15582	.14024	.12466	.10908	.09349	.07791	.06233	10-10-10-10-5

CUT THREAD CARRIAGE BOLTS

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per 100 as adopted Dec. 8, 1932

3/16 & 1/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	1.05	.95	.84	.79	.74	.70	.63	.53	.42	.32	.26
1	1.10	.99	.88	.83	.77	.73	.66	.55	.44	.33	.28
1¼	1.15	1.04	.92	.86	.81	.77	.69	.58	.46	.35	.29
1½	1.20	1.08	.96	.90	.84	.80	.72	.60	.48	.36	.30
2	1.35	1.22	1.08	1.01	.95	.90	.81	.68	.54	.41	.34
2½	1.55	1.40	1.24	1.16	1.09	1.03	.93	.78	.62	.47	.39
3	1.70	1.53	1.36	1.28	1.19	1.13	1.02	.85	.68	.51	.43
3½	1.85	1.67	1.48	1.39	1.30	1.23	1.11	.93	.74	.56	.46
4	2.30	2.07	1.84	1.73	1.61	1.53	1.38	1.15	.92	.69	.58
4½	2.45	2.21	1.96	1.84	1.72	1.63	1.47	1.23	.98	.74	.61
5	2.60	2.34	2.08	1.95	1.82	1.73	1.56	1.30	1.04	.78	.65
5½	2.75	2.48	2.20	2.06	1.93	1.83	1.65	1.38	1.10	.83	.69
6	2.90	2.61	2.32	2.18	2.03	1.93	1.74	1.45	1.16	.87	.73
6½	3.65	3.29	2.92	2.74	2.56	2.43	2.19	1.83	1.46	1.10	.91
7	3.85	3.47	3.08	2.89	2.70	2.57	2.31	1.93	1.54	1.16	.96
7½	4.00	3.60	3.20	3.00	2.80	2.67	2.40	2.00	1.60	1.20	1.00
8	4.20	3.78	3.36	3.15	2.94	2.80	2.52	2.10	1.68	1.26	1.05
8½	4.35	3.92	3.48	3.26	3.05	2.90	2.61	2.18	1.74	1.31	1.09
9	4.55	4.10	3.64	3.41	3.19	3.03	2.73	2.28	1.82	1.37	1.14
9½	4.70	4.23	3.76	3.53	3.29	3.13	2.82	2.35	1.88	1.41	1.18
10	4.90	4.41	3.92	3.68	3.43	3.27	2.94	2.45	1.96	1.47	1.23
11	5.25	4.73	4.18	3.94	3.68	3.50	3.15	2.63	2.10	1.58	1.31
12	5.60	5.04	4.48	4.20	3.92	3.73	3.36	2.80	2.24	1.68	1.40
13	6.15	5.54	4.92	4.61	4.31	4.10	3.69	3.08	2.46	1.85	1.54
14	6.45	5.81	5.16	4.84	4.52	4.30	3.87	3.23	2.58	1.94	1.61
15	6.80	6.12	5.44	5.10	4.76	4.53	4.08	3.40	2.72	2.04	1.70
16	7.10	6.39	5.68	5.33	4.97	4.73	4.26	3.55	2.84	2.13	1.78
17	7.45	6.71	5.96	5.59	5.22	4.97	4.47	3.73	2.98	2.24	1.86
18	7.75	6.98	6.20	5.81	5.43	5.17	4.65	3.88	3.10	2.33	1.94
19	8.10	7.29	6.48	6.08	5.67	5.40	4.86	4.05	3.24	2.43	2.03
20	8.45	7.61	6.76	6.34	5.92	5.63	5.07	4.23	3.38	2.54	2.11

5/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	1.60	1.44	1.28	1.20	1.12	1.07	.96	.80	.64	.48	.40
1	1.65	1.49	1.32	1.24	1.16	1.10	.99	.83	.66	.50	.41
1¼	1.70	1.53	1.36	1.28	1.19	1.13	1.02	.85	.68	.51	.43
1½	1.80	1.62	1.44	1.35	1.26	1.20	1.08	.90	.72	.54	.45
2	2.00	1.80	1.60	1.50	1.40	1.33	1.20	1.00	.80	.60	.50
2½	2.25	2.03	1.80	1.69	1.58	1.50	1.35	1.13	.90	.68	.56
3	2.50	2.25	2.00	1.88	1.75	1.67	1.50	1.25	1.00	.75	.63
3½	2.75	2.48	2.20	2.06	1.93	1.83	1.65	1.38	1.10	.83	.69
4	2.95	2.66	2.36	2.21	2.07	1.97	1.77	1.48	1.18	.89	.74
4½	3.40	3.06	2.72	2.55	2.38	2.27	2.04	1.70	1.36	1.02	.85
5	3.60	3.24	2.88	2.70	2.52	2.40	2.16	1.80	1.44	1.08	.90
5½	3.85	3.47	3.08	2.89	2.70	2.57	2.31	1.93	1.54	1.16	.96
6	4.05	3.65	3.24	3.04	2.84	2.70	2.43	2.03	1.62	1.22	1.01
6½	4.90	4.41	3.92	3.68	3.43	3.27	2.94	2.45	1.96	1.47	1.23
7	5.15	4.64	4.12	3.86	3.61	3.43	3.09	2.58	2.06	1.55	1.29
7½	5.35	4.82	4.28	4.01	3.75	3.57	3.21	2.68	2.14	1.61	1.34
8	5.60	5.04	4.48	4.20	3.92	3.73	3.36	2.80	2.24	1.68	1.40
8½	5.80	5.22	4.64	4.35	4.06	3.87	3.48	2.90	2.32	1.74	1.45
9	6.05	5.45	4.84	4.54	4.24	4.03	3.63	3.03	2.42	1.82	1.51
9½	6.25	5.63	5.00	4.69	4.38	4.17	3.75	3.13	2.50	1.88	1.56
10	6.50	5.85	5.20	4.88	4.55	4.33	3.90	3.25	2.60	1.95	1.63
11	6.95	6.26	5.56	5.21	4.87	4.63	4.17	3.48	2.78	2.09	1.74
12	7.40	6.66	5.92	5.55	5.18	4.93	4.44	3.70	2.96	2.22	1.85
13	8.05	7.25	6.44	6.04	5.64	5.37	4.83	4.03	3.22	2.42	2.01
14	8.50	7.65	6.80	6.38	5.95	5.67	5.10	4.25	3.40	2.55	2.13
15	8.95	8.06	7.16	6.71	6.27	5.97	5.37	4.48	3.58	2.69	2.24
16	9.40	8.46	7.52	7.05	6.58	6.27	5.64	4.70	3.76	2.82	2.35
17	9.85	8.86	7.88	7.39	6.90	6.57	5.91	4.93	3.94	2.96	2.46
18	10.30	9.27	8.24	7.73	7.21	6.87	6.18	5.15	4.12	3.09	2.58
19	10.75	9.68	8.60	8.06	7.53	7.17	6.45	5.38	4.30	3.23	2.69
20	11.20	10.08	8.96	8.40	7.84	7.47	6.72	5.60	4.48	3.36	2.80

Triplex Cap Screws are full finished, burnished on all surfaces, heads shaved. Hex head with U.S.S. or S.A.E. threads; fillister and flat heads with U.S.S. threads.

Triplex Quality is Your Assurance of Steady Profitable Sales

Triplex Set Screws—square head with cup points. Hardened to stand the gaff of tightening, they stay set.

Triplex Carriage Bolts—true squared under the head, they fit snug. Electric heat-treated, quenched in rust-preventing oil.

Triplex Machine Bolts—perfect heads, cut or rolled threads. Electric heat-treated for tensile strength, quenched in rust-preventing oil.

The great increase in the demand for Triplex Bolts, Screws and Nuts in the past few years is recognition of the money-saving service-ability Triplex puts into them.

Scrupulous specification of metals gives customers rugged strength that prevents breakage troubles and expense.

The finest of modern machines guarantee accuracy of forming and threading that mean time-saving assembly.

Electric heat-treating, rust-resisting oil, nickel, cadmium or Parkerized finishes are faultlessly accomplished with the most efficient equipment.

The winning quality of Triplex products makes Triplex, from every point of view, a *better* source of supply. Write at once for catalog and samples.

The Triplex Screw Company
5309 GRANT AVE. CLEVELAND

TRIPLEX
CAP AND SET SCREWS, BOLTS AND NUTS

We are in Position to Make Prompt Shipment of Your Orders

From American standard square heads through clean shanks and true cut threads down to business-like gimlet points, Triplex Lag Bolts are precision made. All heat-treated, quenched in rust-preventing oil.

Triplex Stove Bolts—Made to specifications adopted by Stove and Heater Manufacturers, true heads, deep slots, precision threads—washed clean and bright.

Triplex Plow Bolts are husky and powerful, formed and threaded with skillful precision, electric heat-treated and quenched in rust-resisting oil.

Triplex nuts—Exact size, fuller threads, 100% bearing surface. Hot pressed, cold punched, chamfered and trimmed, and semi-finished.

CUT THREAD CARRIAGE BOLTS

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 60 per cent is desired on 7/16-inch diameter cut thread carriage bolts 5½ inches in length—find the proper length line and follow it along until the 60 per cent column is reached where the correct net price of $2.58 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Dec. 8, 1932.

3/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	2.00	1.80	1.60	1.50	1.40	1.33	1.20	1.00	.80	.60	.50
1	2.10	1.89	1.68	1.58	1.47	1.40	1.26	1.05	.84	.63	.53
1¼	2.20	1.98	1.76	1.65	1.54	1.47	1.32	1.10	.88	.66	.55
1½	2.35	2.12	1.88	1.76	1.65	1.57	1.41	1.18	.94	.71	.59
2	2.60	2.34	2.08	1.95	1.82	1.73	1.56	1.30	1.04	.78	.65
2½	2.90	2.61	2.32	2.18	2.03	1.93	1.74	1.45	1.16	.87	.73
3	3.20	2.88	2.56	2.40	2.24	2.13	1.92	1.60	1.28	.96	.80
3½	3.50	3.15	2.80	2.63	2.45	2.33	2.10	1.75	1.40	1.05	.88
4	3.80	3.42	3.04	2.85	2.66	2.53	2.28	1.90	1.52	1.14	.95
4½	4.10	3.69	3.28	3.08	2.87	2.73	2.46	2.05	1.64	1.23	1.03
5	4.50	4.05	3.60	3.38	3.15	3.00	2.70	2.25	1.80	1.35	1.13
5½	4.80	4.32	3.84	3.60	3.36	3.20	2.88	2.40	1.92	1.44	1.20
6	5.10	4.59	4.08	3.83	3.57	3.40	3.06	2.55	2.04	1.53	1.28
6½	6.30	5.67	5.04	4.73	4.41	4.20	3.78	3.15	2.52	1.89	1.58
7	6.65	5.99	5.32	4.99	4.66	4.43	3.99	3.33	2.66	2.00	1.66
7½	6.95	6.26	5.56	5.21	4.87	4.63	4.17	3.48	2.78	2.09	1.74
8	7.30	6.57	5.84	5.48	5.11	4.87	4.38	3.65	2.92	2.19	1.83
8½	7.60	6.84	6.08	5.70	5.32	5.07	4.56	3.80	3.04	2.28	1.90
9	7.95	7.16	6.36	5.96	5.57	5.30	4.77	3.98	3.18	2.39	1.99
9½	8.25	7.43	6.60	6.19	5.78	5.50	4.95	4.13	3.30	2.48	2.06
10	8.60	7.74	6.88	6.45	6.02	5.73	5.16	4.30	3.44	2.58	2.15
11	9.30	8.37	7.44	6.98	6.51	6.20	5.58	4.65	3.72	2.79	2.33
12	10.00	9.00	8.00	7.50	7.00	6.67	6.00	5.00	4.00	3.00	2.50
13	11.10	9.99	8.88	8.33	7.77	7.40	6.66	5.55	4.44	3.33	2.78
14	11.75	10.58	9.40	8.81	8.23	7.83	7.05	5.88	4.70	3.53	2.94
15	12.40	11.16	9.92	9.30	8.68	8.27	7.44	6.20	4.96	3.72	3.10
16	13.05	11.75	10.44	9.79	9.14	8.70	7.83	6.53	5.22	3.92	3.26
17	13.70	12.33	10.96	10.28	9.59	9.13	8.22	6.85	5.48	4.11	3.43
18	14.35	12.92	11.48	10.76	10.05	9.57	8.61	7.18	5.74	4.31	3.59
19	15.00	13.50	12.00	11.25	10.50	10.00	9.00	7.50	6.00	4.50	3.75
20	15.65	14.09	12.52	11.74	10.96	10.43	9.39	7.83	6.26	4.70	3.91

7/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	3.50	3.15	2.80	2.63	2.45	2.33	2.10	1.75	1.40	1.05	.88
1¼	3.60	3.24	2.88	2.70	2.52	2.40	2.16	1.80	1.44	1.08	.90
1½	3.75	3.38	3.00	2.81	2.63	2.50	2.25	1.88	1.50	1.13	.94
2	4.05	3.65	3.24	3.04	2.84	2.70	2.43	2.03	1.62	1.22	1.01
2½	4.40	3.96	3.52	3.30	3.08	2.93	2.64	2.20	1.76	1.32	1.10
3	4.75	4.28	3.80	3.56	3.33	3.17	2.85	2.38	1.90	1.43	1.19
3½	5.10	4.59	4.08	3.83	3.57	3.40	3.06	2.55	2.04	1.53	1.28
4	5.40	4.86	4.32	4.05	3.78	3.60	3.24	2.70	2.16	1.62	1.35
4½	5.75	5.18	4.60	4.31	4.03	3.83	3.45	2.88	2.30	1.73	1.44
5	6.10	5.49	4.88	4.58	4.27	4.07	3.66	3.05	2.44	1.83	1.53
5½	6.45	5.81	5.16	4.84	4.52	4.30	3.87	3.23	2.58	1.94	1.61
6	6.80	6.12	5.44	5.10	4.76	4.53	4.08	3.40	2.72	2.04	1.70
6½	8.25	7.43	6.60	6.19	5.78	5.50	4.95	4.13	3.30	2.48	2.06
7	8.70	7.83	6.96	6.53	6.09	5.80	5.22	4.35	3.48	2.61	2.18
7½	9.15	8.24	7.32	6.86	6.41	6.10	5.49	4.58	3.66	2.75	2.29
8	9.60	8.64	7.68	7.20	6.72	6.40	5.76	4.80	3.84	2.88	2.40
8½	10.05	9.05	8.04	7.54	7.04	6.70	6.03	5.03	4.02	3.02	2.51
9	10.50	9.45	8.40	7.88	7.35	7.00	6.30	5.25	4.20	3.15	2.63
9½	10.95	9.86	8.76	8.21	7.67	7.30	6.57	5.48	4.38	3.29	2.74
10	11.40	10.26	9.12	8.55	7.98	7.60	6.84	5.70	4.56	3.42	2.85
11	12.25	11.03	9.80	9.19	8.58	8.17	7.35	6.13	4.90	3.68	3.06
12	13.10	11.79	10.48	9.83	9.17	8.73	7.86	6.55	5.24	3.93	3.28
13	14.40	12.96	11.52	10.80	10.08	9.60	8.64	7.20	5.76	4.32	3.60
14	15.25	13.73	12.20	11.44	10.68	10.17	9.15	7.63	6.10	4.58	3.81
15	16.20	14.58	12.96	12.15	11.34	10.80	9.72	8.10	6.48	4.86	4.05
16	17.10	15.39	13.68	12.83	11.97	11.40	10.26	8.55	6.84	5.13	4.28
17	18.00	16.20	14.40	13.50	12.60	12.00	10.80	9.00	7.20	5.40	4.50
18	18.90	17.01	15.12	14.18	13.23	12.60	11.34	9.45	7.56	5.67	4.73
19	19.80	17.82	15.84	14.85	13.86	13.20	11.88	9.90	7.92	5.94	4.95
20	20.70	18.63	16.56	15.53	14.49	13.80	12.42	10.35	8.28	6.21	5.18

CUT THREAD CARRIAGE BOLTS

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per 100 as adopted Dec. 8, 1932

1/2 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	4.25	3.83	3.40	3.19	2.98	2.83	2.55	2.13	1.70	1.28	1.06
1¼	4.40	3.96	3.52	3.30	3.08	2.93	2.64	2.20	1.76	1.32	1.10
1½	4.60	4.14	3.68	3.45	3.22	3.07	2.76	2.30	1.84	1.38	1.15
2	4.95	4.46	3.96	3.71	3.47	3.30	2.97	2.48	1.98	1.49	1.24
2½	5.35	4.82	4.28	4.01	3.75	3.57	3.21	2.68	2.14	1.61	1.34
3	5.75	5.18	4.60	4.31	4.03	3.83	3.45	2.88	2.30	1.73	1.44
3½	6.15	5.54	4.92	4.61	4.31	4.10	3.69	3.08	2.46	1.85	1.54
4	6.55	5.90	5.24	4.91	4.59	4.37	3.93	3.28	2.62	1.97	1.64
4½	6.95	6.26	5.56	5.21	4.87	4.63	4.17	3.48	2.78	2.09	1.74
5	7.35	6.62	5.88	5.51	5.15	4.90	4.41	3.68	2.94	2.21	1.84
5½	7.80	7.02	6.24	5.85	5.46	5.20	4.68	3.90	3.12	2.34	1.95
6	8.20	7.38	6.56	6.15	5.74	5.47	4.92	4.10	3.28	2.46	2.05
6½	9.75	8.78	7.80	7.31	6.83	6.50	5.85	4.88	3.90	2.93	2.44
7	10.20	9.18	8.16	7.65	7.14	6.80	6.12	5.10	4.08	3.06	2.55
7½	10.65	9.59	8.52	7.99	7.46	7.10	6.39	5.33	4.26	3.20	2.66
8	11.10	9.99	8.88	8.33	7.77	7.40	6.66	5.55	4.44	3.33	2.78
8½	12.05	10.85	9.64	9.04	8.44	8.03	7.23	6.03	4.82	3.62	3.01
9	12.50	11.25	10.00	9.38	8.75	8.33	7.50	6.25	5.00	3.75	3.13
9½	12.95	11.66	10.36	9.71	9.07	8.63	7.77	6.48	5.18	3.89	3.24
10	13.40	12.06	10.72	10.05	9.38	8.93	8.04	6.70	5.36	4.02	3.35
11	14.30	12.87	11.44	10.73	10.01	9.53	8.58	7.15	5.72	4.29	3.58
12	15.20	13.68	12.16	11.40	10.64	10.13	9.12	7.60	6.08	4.56	3.80
13	16.10	14.49	12.88	12.08	11.27	10.73	9.66	8.05	6.44	4.83	4.03
14	17.00	15.30	13.60	12.75	11.90	11.33	10.20	8.50	6.80	5.10	4.25
15	17.90	16.11	14.32	13.43	12.53	11.93	10.74	8.95	7.16	5.37	4.48
16	18.80	16.92	15.04	14.10	13.16	12.53	11.28	9.40	7.52	5.64	4.70
17	19.70	17.73	15.76	14.78	13.79	13.13	11.82	9.85	7.88	5.91	4.93
18	20.60	18.54	16.48	15.45	14.42	13.73	12.36	10.30	8.24	6.18	5.15
19	21.50	19.35	17.20	16.13	15.05	14.33	12.90	10.75	8.60	6.45	5.38
20	22.40	20.16	17.92	16.80	15.68	14.93	13.44	11.20	8.96	6.72	5.60

9/16 AND 5/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1¼	8.35	7.52	6.68	6.26	5.85	5.57	5.01	4.18	3.34	2.51	2.09
1½	8.60	7.74	6.88	6.45	6.02	5.73	5.61	4.30	3.44	2.58	2.15
2	9.10	8.19	7.28	6.83	6.37	6.07	5.46	4.55	3.64	2.73	2.28
2½	9.60	8.64	7.68	7.20	6.72	6.40	5.76	4.80	3.84	2.88	2.40
3	10.10	9.09	8.08	7.58	7.07	6.73	6.06	5.05	4.04	3.03	2.53
3½	10.60	9.54	8.48	7.95	7.42	7.07	6.36	5.30	4.24	3.18	2.65
4	11.10	9.99	8.88	8.33	7.77	7.40	6.66	5.55	4.44	3.33	2.78
4½	11.60	10.44	9.28	8.70	8.12	7.73	6.96	5.80	4.64	3.48	2.90
5	12.10	10.89	9.68	9.08	8.47	8.07	7.26	6.05	4.84	3.63	3.03
5½	12.60	11.34	10.08	9.45	8.82	8.40	7.56	6.30	5.04	3.78	3.15
6	13.10	11.79	10.48	9.83	9.17	8.73	7.86	6.55	5.24	3.93	3.28
6½	13.60	12.24	10.88	10.20	9.52	9.07	8.16	6.80	5.44	4.08	3.40
7	14.10	12.69	11.28	10.58	9.87	9.40	8.46	7.05	5.64	4.23	3.53
7½	14.60	13.14	11.68	10.95	10.22	9.73	8.76	7.30	5.84	4.38	3.65
8	15.10	13.59	12.08	11.33	10.57	10.07	9.06	7.55	6.04	4.53	3.78
8½	15.60	14.04	12.48	11.70	10.92	10.40	9.36	7.80	6.24	4.68	3.90
9	16.10	14.49	12.88	12.08	11.27	10.73	9.66	8.05	6.44	4.83	4.03
9½	16.60	14.94	13.28	12.45	11.62	11.07	9.96	8.30	6.64	4.98	4.15
10	17.10	15.39	13.68	12.83	11.97	11.40	10.26	8.55	6.84	5.13	4.28
11	18.10	16.29	14.48	13.58	12.67	12.07	10.86	9.05	7.24	5.43	4.53
12	19.10	17.19	15.28	14.33	13.37	12.73	11.46	9.55	7.64	5.73	4.78
13	20.10	18.09	16.08	15.08	14.07	13.40	12.06	10.05	8.04	6.03	5.03
14	21.10	18.99	16.88	15.83	14.77	14.07	12.66	10.55	8.44	6.33	5.28
15	22.10	19.89	17.68	16.58	15.47	14.73	13.26	11.05	8.84	6.63	5.53
16	23.10	20.79	18.48	17.33	16.17	15.40	13.86	11.55	9.24	6.93	5.78
17	24.10	21.69	19.28	18.08	16.87	16.07	14.46	12.05	9.64	7.23	6.03
18	25.10	22.59	20.08	18.83	17.57	16.73	15.06	12.55	10.04	7.53	6.28
19	26.10	23.49	20.88	19.58	18.27	17.40	15.66	13.05	10.44	7.83	6.53
20	27.10	24.39	21.68	20.33	18.97	18.07	16.26	13.55	10.84	8.13	6.78

CUT THREAD CARRIAGE BOLTS

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 60 per cent is desired on 5/16-inch diameter rolled thread carriage bolts 4½ inches in length—find the proper length line and follow it along until the 60 per cent column is reached where the correct net price of $1.18 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Dec. 8, 1932.

CUT THREAD CARRIAGE BOLTS 3/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1½	12.45	11.21	9.96	9.34	8.72	8.30	7.47	6.23	4.98	3.74	3.11
2	13.10	11.79	10.48	9.83	9.17	8.73	7.86	6.55	5.24	3.93	3.28
2½	13.75	12.38	11.00	10.31	9.63	9.17	8.25	6.88	5.50	4.13	3.44
3	14.40	12.96	11.52	10.80	10.08	9.60	8.64	7.20	5.76	4.32	3.60
3½	15.05	13.55	12.04	11.29	10.54	10.03	9.03	7.53	6.02	4.52	3.76
4	15.70	14.13	12.56	11.78	10.99	10.47	9.42	7.85	6.28	4.71	3.93
4½	16.35	14.72	13.08	12.26	11.45	10.90	9.81	8.18	6.54	4.91	4.09
5	17.00	15.30	13.60	12.75	11.90	11.33	10.20	8.50	6.80	5.10	4.25
5½	17.65	15.89	14.12	13.24	12.36	11.77	10.59	8.83	7.06	5.30	4.41
6	18.30	16.47	14.64	13.73	12.81	12.20	10.98	9.15	7.32	5.49	4.58
6½	18.95	17.06	15.16	14.21	13.27	12.63	11.37	9.48	7.58	5.69	4.74
7	19.60	17.64	15.68	14.70	13.72	13.07	11.76	9.80	7.84	5.88	4.90
7½	20.25	18.23	16.20	15.19	14.18	13.50	12.15	10.13	8.10	6.08	5.06
8	20.90	18.81	16.72	15.68	14.63	13.93	12.54	10.45	8.36	6.27	5.23
8½	21.50	19.35	17.20	16.13	15.05	14.33	12.90	10.75	8.60	6.45	5.38
9	22.20	19.98	17.76	16.65	15.54	14.80	13.32	11.10	8.88	6.66	5.55
9½	22.85	20.57	18.28	17.14	16.00	15.23	13.71	11.43	9.14	6.86	5.71
10	23.50	21.15	18.80	17.63	16.45	15.67	14.10	11.75	9.40	7.05	5.88
11	24.80	22.32	19.84	18.60	17.36	16.53	14.88	12.40	9.92	7.44	6.20
12	26.10	23.49	20.88	19.58	18.27	17.40	15.66	13.05	10.44	7.83	6.53
13	27.40	24.66	21.92	20.55	19.18	18.27	16.44	13.70	10.96	8.22	6.85
14	28.70	25.83	22.96	21.53	20.09	19.13	17.22	14.35	11.48	8.61	7.18
15	30.00	27.00	24.00	22.50	21.00	20.00	18.00	15.00	12.00	9.00	7.50
16	31.30	28.17	25.04	23.48	21.91	20.87	18.78	15.65	12.52	9.39	7.83
17	32.60	29.34	26.08	24.45	22.82	21.73	19.56	16.30	13.04	9.78	8.15
18	33.90	30.51	27.12	25.43	23.73	22.60	20.34	16.95	13.56	10.17	8.48
19	35.20	31.68	28.16	26.40	24.64	23.47	21.12	17.60	14.08	10.56	8.80
20	36.50	32.85	29.20	27.38	25.55	24.33	21.90	18.25	14.60	10.95	9.13

ROLLED THREAD CARRIAGE BOLTS

ROLLED THREAD CARRIAGE BOLTS 3/16 & 1/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	.90	.81	.72	.68	.63	.60	.54	.45	.36	.27	.23
1	.95	.86	.76	.71	.67	.63	.57	.48	.38	.29	.24
1¼	1.00	.90	.80	.75	.70	.67	.60	.50	.40	.30	.25
1½	1.05	.95	.84	.79	.74	.70	.63	.53	.42	.32	.26
2	1.20	1.08	.96	.90	.84	.80	.72	.60	.48	.36	.30
2½	1.35	1.22	1.08	1.01	.95	.90	.81	.68	.54	.41	.34
3	1.50	1.35	1.20	1.13	1.05	1.00	.90	.75	.60	.45	.38
3½	1.65	1.49	1.32	1.24	1.16	1.10	.99	.83	.66	.50	.41
4	2.00	1.80	1.60	1.50	1.40	1.33	1.20	1.00	.80	.60	.50
4½	2.15	1.94	1.72	1.61	1.51	1.43	1.29	1.08	.86	.65	.54
5	2.30	2.07	1.84	1.73	1.61	1.53	1.38	1.15	.92	.69	.58
5½	2.45	2.21	1.96	1.84	1.72	1.63	1.47	1.23	.98	.74	.61
6	2.60	2.34	2.08	1.95	1.82	1.73	1.56	1.30	1.04	.78	.65

ROLLED THREAD CARRIAGE BOLTS 5/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	1.40	1.26	1.12	1.05	.98	.93	.84	.70	.56	.42	.35
1	1.45	1.31	1.16	1.09	1.02	.97	.87	.73	.58	.44	.36
1¼	1.50	1.35	1.20	1.13	1.05	1.00	.90	.75	.60	.45	.38
1½	1.55	1.40	1.24	1.16	1.09	1.03	.93	.78	.62	.47	.39
2	1.75	1.58	1.40	1.31	1.23	1.17	1.05	.88	.70	.53	.44
2½	2.00	1.80	1.60	1.50	1.40	1.33	1.20	1.00	.80	.60	.50
3	2.20	1.98	1.76	1.65	1.54	1.47	1.32	1.10	.88	.66	.55
3½	2.40	2.16	1.92	1.80	1.68	1.60	1.44	1.20	.96	.72	.60
4	2.60	2.34	2.08	1.95	1.82	1.73	1.56	1.30	1.04	.78	.65
4½	2.95	2.65	2.36	2.21	2.07	1.97	1.77	1.48	1.18	.89	.74
5	3.15	2.84	2.52	2.36	2.21	2.10	1.89	1.58	1.26	.95	.79
5½	3.35	3.02	2.68	2.51	2.35	2.23	2.01	1.68	1.34	1.01	.84
6	3.55	3.20	2.84	2.66	2.49	2.37	2.13	1.78	1.42	1.07	.89

BOLT and NUT PRODUCTS
by
SHEFFIELD
In the Manufacture
OF SHEFFIELD BOLT & NUT PRODUCTS
The emphasis is on QUALITY
Uniform high quality and accuracy are reflected in all Sheffield Bolt and Nut Products—from the smallest rivets to the largest foundation bolts.
These distinguishing characteristics result from the fine materials and precision methods employed in Sheffield's most modern bolt plant.
NORMALIZING—a heat treating process after the bolts are formed, assures uniform strength, makes them cleaner to handle and rust-free in stock.
SHEFFIELD
1888 Celebrates its Golden Anniversary 1938
SHEFFIELD
STEEL CORPORATION
KANSAS CITY . . . . MISSOURI

ROLLED THREAD CARRIAGE BOLTS

3/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	1.80	1.62	1.44	1.35	1.26	1.20	1.08	.90	.72	.54	.45
1	1.85	1.67	1.48	1.39	1.30	1.23	1.11	.93	.74	.56	.46
1¼	1.95	1.66	1.56	1.46	1.37	1.30	1.17	.98	.78	.59	.49
1½	2.05	1.85	1.64	1.54	1.44	1.37	1.23	1.03	.82	.62	.51
2	2.30	2.07	1.84	1.73	1.61	1.53	1.38	1.15	.92	.69	.58
2½	2.55	2.30	2.04	1.91	1.79	1.70	1.53	1.28	1.02	.77	.64
3	2.80	2.52	2.24	2.10	1.96	1.87	1.68	1.40	1.12	.84	.70
3½	3.10	2.79	2.48	2.33	2.17	2.07	1.86	1.55	1.24	.93	.78
4	3.35	3.02	2.68	2.51	2.35	2.23	2.01	1.68	1.34	1.01	.84
4½	3.60	3.24	2.88	2.70	2.52	2.40	2.16	1.80	1.44	1.08	.90
5	3.95	3.56	3.16	2.96	2.77	2.63	2.37	1.98	1.58	1.19	.99
5½	4.20	3.78	3.36	3.15	2.94	2.80	2.52	2.10	1.68	1.26	1.05
6	4.45	4.01	3.56	3.34	3.12	2.97	2.67	2.23	1.78	1.34	1.11

1/2 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	3.85	3.47	3.08	2.89	2.70	2.57	2.31	1.93	1.54	1.16	.96
1¼	4.00	3.60	3.20	3.00	2.80	2.67	2.40	2.00	1.60	1.20	1.00
1½	4.15	3.74	3.32	3.11	2.91	2.77	2.49	2.08	1.66	1.25	1.04
2	4.45	4.01	3.56	3.34	3.12	2.97	2.67	2.23	1.78	1.34	1.11
2½	4.80	4.32	3.84	3.60	3.36	3.20	2.88	2.40	1.92	1.44	1.20
3	5.15	4.64	4.12	3.86	3.61	3.43	3.09	2.58	2.06	1.55	1.29
3½	5.50	4.95	4.40	4.13	3.85	3.67	3.30	2.75	2.20	1.65	1.38
4	5.85	5.27	4.68	4.39	4.10	3.90	3.51	2.93	2.34	1.76	1.46
4½	6.20	5.58	4.96	4.65	4.34	4.13	3.72	3.10	2.48	1.86	1.55
5	6.55	5.90	5.24	4.91	4.59	4.37	3.93	3.28	2.62	1.97	1.64
5½	6.95	6.26	5.56	5.21	4.87	4.63	4.17	3.48	2.78	2.09	1.74
6	7.35	6.62	5.88	5.51	5.15	4.90	4.41	3.68	2.94	2.21	1.84

7/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	3.15	2.84	2.52	2.36	2.21	2.10	1.89	1.58	1.26	.95	.79
1¼	3.25	2.93	2.60	2.44	2.28	2.17	1.95	1.63	1.30	.98	.81
1½	3.40	3.06	2.72	2.55	2.38	2.27	2.04	1.70	1.36	1.02	.85
2	3.65	3.29	2.92	2.74	2.56	2.43	2.19	1.83	1.46	1.10	.91
2½	3.95	3.56	3.16	2.96	2.77	2.63	2.37	1.98	1.58	1.19	.99
3	4.25	3.83	3.40	3.19	2.98	2.83	2.55	2.13	1.70	1.28	1.06
3½	4.55	4.10	3.64	3.41	3.19	3.03	2.73	2.28	1.82	1.37	1.14
4	4.85	4.37	3.88	3.64	3.40	3.23	2.91	2.43	1.94	1.46	1.21
4½	5.15	4.64	4.12	3.86	3.61	3.43	3.09	2.58	2.06	1.55	1.29
5	5.45	4.91	4.36	4.09	3.82	3.63	3.27	2.73	2.18	1.64	1.36
5½	5.80	5.23	4.64	4.35	4.06	3.87	3.48	2.90	2.32	1.74	1.45
6	6.15	5.54	4.92	4.61	4.31	4.10	3.69	3.08	2.46	1.85	1.54

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 60 per cent is desired on 1/2-inch diameter rolled thread carriage bolts 2 inches in length—find the proper length line and follow it along until the 60 per cent column is reached where the correct net price of $1.78 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Dec. 8, 1932.

CUT THREAD MACHINE BOLTS

—Square Heads and Square Nuts—

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per 100 as adopted Dec. 8, 1932

3/16 AND 1/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	1.10	.99	.88	.83	.77	.73	.66	.55	.44	.33	.28
1	1.15	1.04	.92	.86	.81	.77	.69	.58	.46	.35	.29
1¼	1.25	1.13	1.00	.94	.88	.83	.75	.63	.50	.38	.31
1½	1.30	1.17	1.04	.98	.91	.87	.78	.65	.52	.39	.33
2	1.50	1.35	1.20	1.13	1.05	1.00	.90	.75	.60	.45	.38
2½	1.70	1.53	1.36	1.28	1.19	1.13	1.02	.85	.68	.51	.43
3	1.85	1.67	1.48	1.39	1.30	1.23	1.11	.93	.74	.56	.46
3½	2.05	1.85	1.64	1.54	1.44	1.37	1.23	1.03	.82	.62	.51
4	2.50	2.25	2.00	1.88	1.75	1.67	1.50	1.25	1.00	.75	.63
4½	2.65	2.39	2.12	1.99	1.85	1.77	1.59	1.33	1.06	.83	.66
5	2.80	2.52	2.24	2.10	1.96	1.87	1.68	1.40	1.12	.84	.70
5½	2.95	2.66	2.36	2.21	2.07	1.97	1.77	1.48	1.18	.89	.74
6	3.10	2.79	2.48	2.33	2.17	2.07	1.86	1.55	1.24	.93	.78
6½	3.80	3.42	3.04	2.85	2.66	2.53	2.28	1.90	1.52	1.14	.95
7	4.00	3.60	3.20	3.00	2.80	2.67	2.40	2.00	1.60	1.20	1.00
7½	4.15	3.74	3.32	3.11	2.91	2.77	2.49	2.08	1.66	1.25	1.04
8	4.35	3.92	3.48	3.26	3.05	2.90	2.61	2.18	1.74	1.31	1.09
8½	4.50	4.05	3.60	3.38	3.15	3.00	2.70	2.25	1.80	1.35	1.13
9	4.70	4.23	3.76	3.53	3.29	3.13	2.82	2.35	1.88	1.41	1.18
9½	4.85	4.37	3.88	3.64	3.40	3.23	2.91	2.43	1.94	1.46	1.21
10	5.05	4.55	4.04	3.79	3.54	3.37	3.03	2.53	*2.02	1.52	1.26
11	5.40	4.86	4.32	4.05	3.78	3.60	3.24	2.70	2.16	1.62	1.35
12	5.75	5.18	4.60	4.31	4.03	3.83	3.45	2.88	2.30	1.73	1.44
13	6.30	5.67	5.04	4.73	4.41	4.20	3.78	3.15	2.52	1.89	1.58
14	6.60	5.94	5.28	4.95	4.62	4.40	*3.96	3.30	2.64	1.98	1.65
15	6.95	6.26	5.56	5.21	4.87	4.63	4.17	3.48	2.78	2.09	1.74
16	7.25	6.53	5.80	5.44	5.08	4.83	4.35	3.63	2.90	2.18	1.81
17	7.60	6.84	6.08	5.70	5.32	5.07	4.56	3.80	3.04	2.28	1.90
18	7.90	7.11	6.32	5.93	5.53	5.27	4.74	3.95	3.16	2.37	1.98
19	8.25	7.43	6.60	6.19	5.78	5.50	4.95	4.13	3.30	2.48	2.06
20	8.60	7.74	6.88	6.45	6.02	5.73	5.16	4.30	3.44	2.58	2.15

5/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	1.70	1.53	1.36	1.28	1.19	1.13	1.02	.85	.68	.51	.43
1	1.75	1.58	1.40	1.31	1.23	1.17	1.05	.88	.70	.53	.44
1¼	1.80	1.62	1.44	1.35	1.26	1.20	1.08	.90	.72	.54	.45
1½	1.95	1.76	1.56	1.46	1.37	1.30	1.17	.98	.78	.59	.49
2	2.20	1.98	1.76	1.65	1.54	1.47	1.32	1.10	.88	.66	.55
2½	2.45	2.21	1.96	1.84	1.72	1.63	1.47	1.23	.98	.74	.61
3	2.70	2.43	2.16	2.03	1.89	1.80	1.62	1.35	1.08	.81	.68
3½	2.95	2.66	2.36	2.21	2.07	1.97	1.77	1.48	1.18	.89	.74
4	3.15	2.84	2.52	2.36	2.21	2.10	1.89	1.58	1.26	.95	.79
4½	3.60	3.24	2.88	2.70	2.52	2.40	2.16	1.80	1.44	1.08	.90
5	3.80	3.42	3.04	2.85	2.66	2.53	2.28	1.90	1.52	1.14	.95
5½	4.00	3.60	3.20	3.00	2.80	2.67	2.40	2.00	1.60	1.20	1.00
6	4.20	3.78	3.36	3.15	2.94	2.80	2.52	2.10	1.68	1.26	1.05
6½	5.10	4.59	4.08	3.83	3.57	3.40	3.06	2.55	2.04	1.53	1.28
7	5.35	4.82	4.28	4.01	3.75	3.57	3.21	2.68	2.14	1.61	1.34
7½	5.55	5.00	4.44	4.16	3.89	3.70	3.33	2.78	2.22	1.67	1.39
8	5.80	5.22	4.64	4.35	4.06	3.87	3.48	2.90	2.32	1.74	1.45
8½	6.00	5.40	4.80	4.50	4.20	4.00	3.60	3.00	2.40	1.80	.50
9	6.25	5.63	5.00	4.69	4.38	4.17	3.75	3.13	2.50	1.88	1.56
9½	6.45	5.81	5.16	4.84	4.52	4.30	3.87	3.23	2.58	1.94	1.61
10	6.70	6.03	5.36	5.03	4.69	4.47	4.02	3.35	2.68	2.01	1.68
11	7.15	6.44	5.72	5.36	5.01	4.77	4.29	3.58	2.86	2.15	1.79
12	7.60	6.84	6.08	5.70	5.32	5.07	4.56	3.80	3.04	2.28	1.90
13	8.25	7.43	6.60	6.19	5.78	5.50	4.95	4.13	3.30	2.48	2.06
14	8.70	7.83	6.96	6.53	6.09	5.80	5.22	4.35	3.48	2.61	2.18
15	9.15	8.24	7.32	6.86	6.41	6.10	5.49	4.58	3.66	2.75	2.29
16	9.60	8.64	7.68	7.20	6.72	6.40	5.76	4.80	3.84	2.88	2.40
17	10.05	9.05	8.04	7.54	7.04	6.70	6.03	5.03	4.02	3.01	2.51
18	10.50	9.45	8.40	7.88	7.35	7.00	6.30	5.25	4.20	3.15	2.63
19	10.95	9.86	8.76	8.21	7.67	7.30	6.57	5.48	4.38	3.29	2.74
20	11.40	10.26	9.12	8.55	7.98	7.60	6.84	5.70	4.56	3.42	2.85

YOU CAN BUY ALL OF YOUR

Bolt and Nut

FROM THIS ONE DEPENDABLE S

Test a LAMSON carton yourself. Empty it, close it up, and stand on it. A 234-lb. man balanced himself on the new LAMSON carton, which was empty, and it did not crush! That's tough! And strong! And that's part of LAMSON service to the hardware trade.

A *Better* PACKAGE . . . . MEANS A

Hardware dealers handling the LAMSON line have no reason to keep their bolt stock in bins below the counter because the boxes come apart from frequent handling. The new LAMSON carton is so strong—*three times stronger than any carton used before*—that it stands up under repeated abuse without evidence wear. Moreover, due to the copyrighted over design, these tough cartons do not sh finger-marks, and can be kept in sight on y shelves where inventory is easy and the st is always accessible. Keeping your bolt st

ut Products

BLE SOURCE » »

CLEANER STOCK

idence in the clearly labeled LAMSON cartons means
hted c there is less chance for sizes being mixed, and
not sho of course the products stay cleaner. LAMSON
t on yo dealers report quicker turn-over because of the
the sto new LAMSON Prize-Winning carton. Ask your
olt sto obber for it next time you fill in your stocks.

Since 1867 when this company was founded the LAMSON name on a bolt carton has meant the highest quality obtainable. It means exactly that today—and it will mean the same tomorrow. • Back of the LAMSON label is a long experienced personnel—and five modern plants, each of them large, able and ready to serve you through your jobber. Besides these facilities, LAMSON & SESSIONS is the manufacturer of the most complete line of bolt and nut products in this country—so that regardless of your requirements, LAMSON & SESSIONS can fill them out of stock or on short notice. There is a LAMSON jobber in every one of the important jobbing centers of distribution—a jobber chosen for his ability to serve his trading area. Some of them have stocked and sold the LAMSON line for nearly 70 years. LAMSON & SESSIONS has always had a sound jobber policy, cooperating with the hardware dealer to the fullest possible extent. • And now the LAMSON line has another important advantage—for it was awarded the Silver Trophy in the All-America Package Competition because of its new package which not only identifies the line but offers definite merchandising and display value to the hardware dealer. It is also the strongest carton ever used—*three times stronger than any carton used before!* (Products too large for cartons are wrapped in paper packages matching the cartons in design.) • Ask your jobber for the LAMSON line of bolt and nut products and identify yourself as a LAMSON dealer by giving these modern products display in your store. The new illustrated package *reminds* customers—*without your saying a word*—that you have bolts of all kinds for sale.

THE LAMSON & SESSIONS COMPANY

GENERAL OFFICES, CLEVELAND, OHIO

Plants at Cleveland and Kent, Ohio; Chicago and Birmingham

BOLTS with the Background of a NAME

that stands for quality in every form of steel

When you sell Bethlehem headed and threaded products your way is cleared to a great extent by the widespread association of the name Bethlehem with high-grade steels and steel products. Customers will seldom have to be convinced that these fastenings measure up to their standards.

Bethlehem makes practically all headed and threaded products—machine, carriage, lag, hanger, elevator bolts; studs; nuts. Also track bolts and track spikes of all sizes. Rivets, washers, boat spikes. Special bolts, turnbuckles and clevises. Fastenings for such special applications as high-temperature and corrosive conditions.

A handy reference for your salesmen is Bethlehem's vest-pocket handbook, listing, pricing, and describing all standard bolts, nuts, rivets and spikes. If you don't have copies enough to go around, write to Bethlehem Steel Company, Bethlehem, Pa., and ask for Handbook No. 136.

BETHLEHEM STEEL

BETHLEHEM STEEL COMPANY

CUT THREAD MACHINE BOLTS

–Square Heads and Square Nuts–

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per 100 as adopted Dec. 8, 1932

3/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	2.25	2.03	1.80	1.69	1.58	1.50	1.35	1.13	.90	.68	.56
1	2.35	2.12	1.88	1.76	1.65	1.57	1.41	1.18	.94	.71	.59
1¼	2.45	2.21	1.96	1.84	1.72	1.63	1.47	1.23	.98	.74	.61
1½	2.60	2.34	2.08	1.95	1.82	1.73	1.56	1.30	1.04	.78	.65
2	2.90	2.61	2.32	2.18	2.03	1.93	1.74	1.45	1.16	.87	.73
2½	3.20	2.88	2.56	2.40	2.24	2.13	1.92	1.60	1.28	.96	.80
3	3.50	3.15	2.80	2.63	2.45	2.33	2.10	1.75	1.40	1.05	.88
3½	3.80	3.42	3.04	2.85	2.66	2.53	2.28	1.90	1.52	1.14	.95
4	4.10	3.69	3.28	3.08	2.87	2.73	2.46	2.05	1.64	1.23	1.03
4½	4.40	3.96	3.52	3.30	3.08	2.93	2.64	2.20	1.76	1.32	1.10
5	4.80	4.32	3.84	3.60	3.36	3.20	2.88	2.40	1.92	1.44	1.20
5½	5.10	4.59	4.08	3.83	3.57	3.40	3.06	2.55	2.04	1.53	1.28
6	5.40	4.86	4.32	4.05	3.78	3.60	3.24	2.70	2.16	1.62	1.35
6½	6.50	5.85	5.20	4.88	4.55	4.33	3.90	3.25	2.60	1.95	1.63
7	6.85	6.17	5.48	5.14	4.80	4.57	4.11	3.43	2.74	2.06	1.71
7½	7.15	6.44	5.72	5.36	5.01	4.77	4.29	3.58	2.86	2.15	1.79
8	7.50	6.75	6.00	5.63	5.25	5.00	4.50	3.75	3.00	2.25	1.88
8½	7.80	7.02	6.24	5.85	5.46	5.20	4.68	3.90	3.12	2.34	1.95
9	8.15	7.34	6.52	6.11	5.71	5.43	4.89	4.08	3.26	2.45	2.04
9½	8.45	7.61	6.76	6.34	5.92	5.63	5.07	4.23	3.38	2.54	2.11
10	8.80	7.92	7.04	6.60	6.16	5.87	5.28	4.40	3.52	2.64	2.20
11	9.50	8.55	7.60	7.13	6.65	6.33	5.70	4.75	3.80	2.85	2.38
12	10.20	9.18	8.16	7.65	7.14	6.80	6.12	5.10	4.08	3.06	2.55
13	11.30	10.17	9.04	8.48	7.91	7.53	6.78	5.65	4.52	3.39	2.83
14	11.95	10.76	9.56	8.96	8.37	7.97	7.17	5.98	4.78	3.58	2.99
15	12.60	11.34	10.08	9.45	8.82	8.40	7.56	6.30	5.04	3.78	3.15
16	13.25	11.93	10.60	9.94	9.28	8.83	7.95	6.63	5.30	3.98	3.31
17	13.90	12.51	11.12	10.43	9.73	9.27	8.34	6.95	5.56	4.17	3.48
18	14.55	13.10	11.64	10.91	10.19	9.70	8.73	7.28	5.82	4.36	3.64
19	15.20	13.68	12.16	11.40	10.64	10.13	9.12	7.60	6.08	4.56	3.80
20	15.85	14.27	12.68	11.89	11.10	10.57	9.51	7.93	6.34	4.76	3.96

7/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	3.95	3.56	3.16	2.96	2.77	2.63	2.37	1.98	1.58	1.19	.99
1¼	4.10	3.69	3.28	3.08	2.87	2.73	2.46	2.05	1.64	1.23	1.03
1½	4.25	3.83	3.40	3.19	2.98	2.83	2.55	2.13	1.70	1.28	1.06
2	4.55	4.10	3.64	3.41	3.19	3.03	2.73	2.28	1.82	1.37	1.14
2½	4.85	4.37	3.88	3.64	3.40	3.23	2.91	2.43	1.94	1.46	1.21
3	5.20	4.68	4.16	3.90	3.64	3.47	3.12	2.60	2.08	1.56	1.30
3½	5.50	4.95	4.40	4.13	3.85	3.67	3.30	2.75	2.20	1.65	1.38
4	5.85	5.27	4.68	4.39	4.10	3.90	3.51	2.93	2.34	1.76	1.46
4½	6.15	5.54	4.92	4.61	4.31	4.10	3.69	3.08	2.46	1.85	1.54
5	6.50	5.85	5.20	4.88	4.55	4.33	3.90	3.25	2.60	1.95	1.63
5½	6.85	6.17	5.48	5.14	4.80	4.57	4.11	3.43	2.74	2.06	1.71
6	7.15	6.44	5.72	5.36	5.01	4.77	4.29	3.58	2.86	2.15	1.79
6½	9.20	8.28	7.36	6.90	6.44	6.13	5.52	4.60	3.68	2.76	2.30
7	9.65	8.69	7.72	7.24	6.76	6.50	5.79	4.83	3.86	2.90	2.41
7½	10.10	9.09	8.08	7.58	7.07	6.73	6.06	5.05	4.04	3.03	2.53
8	10.55	9.50	8.44	7.91	7.39	7.03	6.33	5.28	4.22	3.17	2.64
8½	11.00	9.90	8.80	8.25	7.70	7.33	6.60	5.50	4.40	3.30	2.75
9	11.45	10.31	9.16	8.59	8.02	7.63	6.87	5.73	4.58	3.44	2.86
9½	11.95	10.76	9.56	8.96	8.37	7.97	7.17	5.98	4.78	3.59	2.99
10	12.35	11.12	9.88	9.26	8.65	8.23	7.41	6.18	4.94	3.71	3.09
11	13.20	11.88	10.56	9.90	9.24	8.80	7.92	6.60	5.28	3.96	3.30
12	14.05	12.65	11.24	10.54	9.84	9.37	8.43	7.03	5.62	4.22	3.51
13	15.35	13.82	12.28	11.51	10.75	10.23	9.21	7.68	6.14	4.61	3.84
14	16.20	14.58	12.96	12.15	11.34	10.80	9.72	8.10	6.48	4.86	4.05
15	17.15	15.44	13.72	12.76	12.01	11.43	10.29	8.58	6.86	5.15	4.29
16	18.05	16.25	14.44	13.54	12.64	12.03	10.85	9.03	7.22	5.42	4.51
17	18.95	17.06	15.16	14.21	13.27	12.63	11.37	9.48	7.58	5.69	4.74
18	19.85	17.87	15.88	14.89	13.90	13.23	11.91	9.93	7.94	5.96	4.96
19	20.75	18.68	16.60	15.56	14.53	13.83	12.45	10.38	8.30	6.23	5.19
20	21.65	19.19	17.32	16.24	15.16	14.43	12.99	10.83	8.66	6.50	5.41

CUT THREAD MACHINE BOLTS

–Square Heads and Square Nuts–

These charts provide a direct short cut in determing net cost or selling prices on the sizes specified. **Example:** Assume a discount of 60 per cent is desired on 1/2-inch diameter cut thread machine bolts 6 inches in length—find the proper length line and follow it along until the 60 per cent column is reached where the correct net price of $3.38 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Dec. 8, 1932.

1/2 INCH DIAMETER

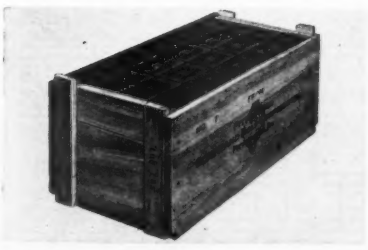
Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	4.60	4.14	3.68	3.45	3.22	3.07	2.76	2.30	1.84	1.38	1.15
1¼	4.80	4.32	3.84	3.60	3.36	3.20	2.88	2.40	1.92	1.44	1.20
1½	5.00	4.50	4.00	3.75	3.50	3.33	3.00	2.50	2.00	1.50	1.25
2	5.35	4.82	4.28	4.01	3.75	3.57	3.21	2.68	2.14	1.61	1.34
2½	5.75	5.18	4.60	4.31	4.03	3.83	3.45	2.88	2.30	1.73	1.44
3	6.15	5.54	4.92	4.61	4.31	4.10	3.69	3.08	2.46	1.85	1.54
3½	6.50	5.85	5.24	4.88	4.55	4.33	3.90	3.25	2.60	1.95	1.63
4	6.85	6.17	5.48	5.14	4.80	4.57	4.11	3.43	2.74	2.06	1.71
4½	7.25	6.53	5.80	5.44	5.08	4.83	4.35	3.63	2.90	2.18	1.81
5	7.65	6.89	6.12	5.74	5.36	5.10	4.83	3.83	3.06	2.30	1.91
5½	8.05	7.25	6.44	6.04	5.64	5.37	4.83	4.03	3.22	2.42	2.01
6	8.45	7.61	6.76	6.34	5.92	5.63	5.07	4.23	3.38	2.54	2.11
6½	10.15	9.14	8.12	7.61	7.11	6.76	6.09	5.08	4.06	3.05	2.54
7	10.60	9.54	8.48	7.95	7.42	7.07	6.36	5.30	4.24	3.18	2.65
7½	11.05	9.95	8.84	8.27	7.74	7.37	6.63	5.53	4.42	3.32	2.76
8	11.50	10.35	9.20	8.63	8.05	7.67	6.90	5.75	4.60	3.45	2.88
8½	11.95	10.76	9.56	8.96	8.37	7.97	7.17	5.98	4.78	3.59	2.99
9	12.40	11.16	9.92	9.30	8.68	8.27	7.44	6.20	4.96	3.72	3.10
9½	12.85	11.57	10.28	9.64	9.00	8.57	7.71	6.43	5.14	3.86	3.21
10	13.30	11.97	10.64	9.98	9.31	8.87	7.98	6.65	5.32	3.99	3.33
11	14.70	13.23	11.76	11.03	10.29	9.80	8.82	7.35	5.88	4.41	3.68
12	15.60	14.04	12.48	11.70	10.92	10.40	9.36	7.80	6.24	4.68	3.90
13	16.50	14.85	13.20	12.38	11.55	11.00	9.90	8.25	6.60	4.95	4.13
14	17.40	15.66	13.92	13.05	12.18	11.60	10.44	8.70	6.96	5.22	4.35
15	18.30	16.47	14.64	13.73	12.81	12.20	10.98	9.15	7.32	5.49	4.58
16	19.20	17.28	15.36	14.40	13.44	12.80	11.52	9.60	7.68	5.76	4.80
17	20.10	18.09	16.08	15.08	14.07	13.40	12.06	10.05	8.04	6.03	5.03
18	21.00	18.90	16.80	15.75	14.70	14.00	12.60	10.50	8.40	6.30	5.25
19	21.90	19.71	17.52	16.44	15.33	14.60	13.14	10.95	8.76	6.57	5.48
20	22.80	20.52	18.24	17.10	15.96	15.20	13.68	11.40	9.12	6.84	5.70

9/16 & 5/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	8.10	7.29	6.48	6.08	5.67	5.40	4.86	4.05	3.24	2.43	2.03
1¼	8.35	7.52	6.68	6.26	5.85	5.57	5.01	4.18	3.34	2.51	2.09
1½	8.60	7.74	6.88	6.45	6.02	5.73	5.16	4.30	3.44	2.58	2.15
2	9.10	8.19	7.28	6.83	6.37	6.07	5.46	4.55	3.64	2.73	2.28
2½	9.60	8.64	7.68	7.20	6.72	6.40	5.76	4.80	3.84	2.88	2.40
3	10.10	9.09	8.08	7.58	7.07	6.73	6.06	5.05	4.04	3.03	2.53
3½	10.60	9.54	8.48	7.95	7.42	7.07	6.36	5.30	4.24	3.18	2.65
4	11.10	9.99	8.88	8.33	7.77	7.40	6.66	5.55	4.44	3.33	2.78
4½	11.60	10.44	9.28	8.70	8.12	7.73	6.96	5.80	4.64	3.48	2.90
5	12.10	10.89	9.68	9.08	8.47	8.07	7.26	6.05	4.84	3.63	3.03
5½	12.60	11.34	10.08	9.45	8.82	8.40	7.56	6.30	5.04	3.78	3.15
6	13.10	11.79	10.48	9.83	9.17	8.73	7.86	6.55	5.24	3.93	3.28
6½	13.60	12.24	10.88	10.20	9.52	9.07	8.16	6.80	5.44	4.08	3.40
7	14.10	12.69	11.28	10.58	9.87	9.40	8.46	7.05	5.64	4.23	3.53
7½	14.60	13.14	11.68	10.95	10.22	9.73	8.76	7.30	5.84	4.38	3.65
8	15.10	13.59	12.08	11.33	10.57	10.07	9.06	7.55	6.04	4.53	3.78
8½	15.60	14.04	12.48	11.70	10.92	10.40	9.36	7.80	6.24	4.68	3.90
9	16.10	14.49	12.88	12.08	11.27	10.73	9.66	8.05	6.44	4.83	4.03
9½	16.60	14.94	13.28	12.45	11.62	11.07	9.96	8.30	6.64	4.98	4.15
10	17.10	15.39	13.68	12.83	11.97	11.40	10.26	8.55	6.84	5.13	4.28
11	18.10	16.29	14.48	13.58	12.67	12.07	10.86	9.05	7.24	5.43	4.53
12	19.10	17.19	15.28	14.33	13.37	12.73	11.46	9.55	7.64	5.73	4.78
13	20.10	18.09	16.08	15.08	14.07	13.40	12.06	10.05	8.04	6.03	5.03
14	21.10	18.99	16.88	15.83	14.77	14.07	12.66	10.55	8.44	6.33	5.28
15	22.10	19.89	17.68	16.58	15.47	14.73	13.26	11.05	8.84	6.63	5.53
16	23.10	20.79	18.48	17.33	16.17	15.40	13.86	11.55	9.24	6.93	5.78
17	24.10	21.69	19.28	18.08	16.87	16.07	14.46	12.05	9.64	7.23	6.03
18	25.10	22.59	20.08	18.83	17.57	16.73	15.06	12.55	10.04	7.53	6.28
19	26.10	23.49	20.88	19.58	18.27	17.40	15.66	13.05	10.44	7.83	6.53
20	27.10	24.39	21.68	20.33	18.97	18.07	16.26	13.55	10.84	8.13	6.78

4 LARGE MANUFACTURING PLANTS STRATEGICALLY LOCATED TO MEET THE REQUIREMENTS OF MILL SUPPLY AND HARDWARE JOBBERS EVERYWHERE!

Every detail of manufacture from the laboratory selection of the steel to the careful packing for shipment is one of meticulous care.



Time-proved quality has created a nationwide jobber demand for dependable products—a demand that is being adequately met through the modern facilities of four manufacturing plants conveniently located in four large key production centers. This assures a quick source of supply for bolts, nuts, and rivets of every size and description, regardless of your geographical location.

PITTSBURGH
SCREW AND BOLT CORPORATION
PITTSBURGH, PA.

GARY
SCREW AND BOLT COMPANY
GARY, IND.—CHICAGO, ILL.

American Equipment Corp. . . . . Norristown, Pa.

DISTRICT OFFICES: 37 International Building, New York, N. Y. . . . . General Motors Building, Detroit, Michigan . . . . . Guarantee Title Building, Cleveland, Ohio . . . . . Post Office Box 222, Savannah, Georgia . . . . . Republic Bank Building, Dallas, Texas

CUT THREAD MACHINE BOLTS

–Square Heads and Square Nuts–

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per 100 as adopted Dec. 8, 1932

3/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1½	10.95	9.86	8.76	8.21	7.67	7.30	6.57	5.48	4.38	3.29	2.74
2	11.60	10.44	9.28	8.70	8.12	7.73	6.96	5.80	4.64	3.48	2.90
2½	12.25	11.03	9.80	9.19	8.58	8.17	7.35	6.13	4.90	3.68	3.06
3	12.90	11.61	10.32	9.68	9.03	8.60	7.74	6.45	5.16	3.87	3.23
3½	13.55	12.20	10.84	10.16	9.49	9.03	8.13	6.78	5.42	4.07	3.39
4	14.20	12.78	11.36	10.65	9.94	9.47	8.52	7.10	5.68	4.26	3.55
4½	14.85	13.37	11.88	11.14	10.40	9.90	8.91	7.43	5.94	4.46	3.71
5	15.50	13.95	12.40	11.63	10.85	10.33	9.30	7.75	6.20	4.65	3.88
5½	16.15	14.54	12.92	12.11	11.31	10.77	9.69	8.08	6.46	4.85	4.04
6	16.80	15.12	13.44	12.60	11.76	11.20	10.08	8.40	6.72	5.04	4.20
6½	17.45	15.71	13.96	13.09	12.22	11.63	10.47	8.73	6.98	5.24	4.36
7	18.10	16.29	14.48	13.58	12.67	12.07	10.86	9.05	7.24	5.43	4.52
7½	18.75	16.88	15.00	14.06	13.13	12.50	11.25	9.38	7.50	5.63	4.69
8	19.40	17.46	15.52	14.55	13.58	12.93	11.64	9.70	7.76	5.82	4.85
8½	20.05	18.05	16.04	15.04	14.04	13.37	12.03	10.03	8.02	6.02	5.01
9	20.70	18.63	16.56	15.53	14.35	13.80	12.42	10.35	8.28	6.21	5.18
9½	21.35	19.22	17.08	16.01	14.95	14.23	12.81	10.68	8.54	6.41	5.34
10	22.00	19.80	17.60	16.50	15.40	14.67	13.20	11.00	8.80	6.60	5.50
11	23.30	20.97	18.64	17.48	16.31	15.53	13.98	11.65	9.32	6.99	5.83
12	24.60	21.14	19.68	18.45	17.22	16.40	14.76	12.30	9.84	7.38	6.15
13	25.90	23.31	20.72	19.43	18.13	17.27	15.54	12.95	10.36	7.77	6.48
14	27.20	24.48	21.76	20.40	19.04	18.13	16.32	13.60	10.88	8.16	6.80
15	28.50	25.65	22.80	21.38	19.95	19.00	17.10	14.25	11.40	8.55	7.13
16	29.80	26.82	23.84	22.35	20.86	19.87	17.88	14.90	11.92	8.94	7.45
17	31.10	27.99	24.88	23.33	21.77	20.73	18.66	15.55	12.44	9.33	7.78
18	32.40	29.16	25.92	24.30	22.68	21.60	19.44	16.20	12.96	9.72	8.10
19	33.70	30.33	26.96	25.28	23.59	22.47	20.22	16.85	13.48	10.11	8.43
20	35.00	31.50	28.00	26.25	24.50	23.33	21.00	17.50	14.00	10.50	8.75

7/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1½	16.70	15.03	13.36	12.53	11.69	11.13	10.02	8.35	6.68	5.01	4.18
2	17.60	15.84	14.08	13.20	12.32	11.73	10.56	8.80	7.04	5.28	4.40
2½	18.50	16.65	14.80	13.88	12.95	12.33	11.10	9.25	7.40	5.55	4.63
3	19.40	17.46	15.52	14.55	13.58	12.93	11.64	9.70	7.76	5.82	4.85
3½	20.30	18.27	16.24	15.23	14.21	13.53	12.18	10.15	8.12	6.09	5.08
4	21.20	19.08	16.96	15.90	14.84	14.13	12.72	10.60	8.48	6.36	5.30
4½	22.10	19.89	17.68	16.58	15.47	14.73	13.26	11.05	8.84	6.63	5.53
5	23.00	20.70	18.40	17.25	16.10	15.33	13.80	11.50	9.20	6.90	5.75
5½	23.90	21.51	19.12	17.93	16.73	15.93	14.34	11.95	9.56	7.17	5.98
6	24.80	22.32	19.84	18.60	17.36	16.53	14.88	12.40	9.92	7.44	6.20
6½	25.70	23.13	20.56	19.28	17.99	17.13	15.42	12.85	10.28	7.71	6.43
7	26.60	23.94	21.28	19.95	18.62	17.73	15.96	13.30	10.64	7.98	6.65
7½	27.50	24.75	22.00	20.63	19.25	18.33	16.50	13.75	11.00	8.25	6.88
8	28.40	25.56	22.72	21.30	19.88	18.93	17.04	14.20	11.36	8.52	7.10
8½	29.30	26.37	23.44	21.98	20.51	19.53	17.58	14.65	11.72	8.79	7.33
9	30.20	27.18	24.16	22.65	21.14	20.13	18.12	15.10	12.08	9.06	7.55
9½	31.10	27.99	24.88	23.33	21.77	20.73	18.66	15.55	12.44	9.33	7.78
10	32.00	28.80	25.60	24.00	22.40	21.33	19.20	16.00	12.80	9.60	8.00
11	33.80	30.42	27.04	25.35	23.66	22.53	20.28	16.90	13.52	10.14	8.45
12	35.60	32.04	28.48	26.70	24.92	23.73	21.36	17.80	14.24	10.68	8.90
13	37.40	33.66	29.92	28.05	26.18	24.93	22.44	18.70	14.96	11.22	9.35
14	39.20	35.28	31.36	29.40	27.44	26.13	23.52	19.60	15.68	11.76	9.80
15	41.00	36.90	32.80	30.75	28.70	27.33	24.60	20.50	16.40	12.30	10.25
16	42.80	38.52	34.24	32.10	29.96	28.53	25.68	21.40	17.12	12.84	10.70
17	44.60	40.14	35.68	33.45	31.22	29.73	26.76	22.30	17.84	13.38	11.15
18	46.40	41.76	37.12	34.80	32.48	30.93	27.84	23.20	18.56	13.92	11.60
19	48.20	43.38	38.56	36.15	33.74	32.13	28.92	24.10	19.28	14.46	12.05
20	50.00	45.00	40.00	37.50	35.00	33.34	30.00	25.00	20.00	15.00	12.50

20	35.00	31.50	28.00	26.25	24.50	23.33	21.00	17.50	14.00	10.50	8.75

CUT THREAD MACHINE BOLTS

–Square Heads and Square Nuts–

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 60 per cent is desired on 1-inch diameter cut thread machine bolts 5 inches in length—find the proper length line and follow it along until the 60 per cent column is reached where the correct net price of $12.52 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Dec. 8, 1932.

1 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1½	23.25	20.93	18.60	17.44	16.28	15.50	13.95	11.63	9.30	6.98	5.81
2	24.40	21.96	19.52	18.30	17.08	16.27	14.64	12.20	9.76	7.32	6.10
2½	25.55	23.00	20.44	19.16	17.89	17.03	15.33	12.78	10.22	7.67	6.39
3	26.70	24.03	21.36	20.03	18.69	17.80	16.02	13.35	10.68	8.01	6.68
3½	27.85	25.07	22.28	20.89	19.50	18.57	16.71	13.93	11.14	8.36	6.96
4	29.00	26.10	23.20	21.75	20.30	19.33	17.40	14.50	11.60	8.70	7.25
4½	30.15	27.14	24.12	22.61	21.11	20.10	18.09	15.08	12.06	9.05	7.54
5	31.30	28.17	25.04	23.48	21.91	20.87	18.78	15.65	12.52	9.39	7.83
5½	32.45	29.21	25.96	24.34	22.72	21.63	19.47	16.23	12.98	9.74	8.11
6	33.60	30.24	26.88	25.20	23.52	22.40	20.16	16.80	13.44	10.08	8.40
6½	34.75	31.28	27.80	26.06	24.33	23.17	20.85	17.38	13.90	10.43	8.69
7	35.90	32.31	28.72	26.93	25.13	23.93	21.54	17.95	14.36	10.77	8.98
7½	37.05	33.35	29.64	27.79	25.94	24.70	22.23	18.53	14.82	11.12	9.26
8	38.20	34.38	30.56	28.65	26.74	25.47	22.92	19.10	15.28	11.46	9.55
8½	39.35	35.42	31.48	29.51	27.55	26.23	23.61	19.68	15.74	11.81	9.84
9	40.50	36.45	32.40	30.38	28.35	27.00	24.30	20.25	16.20	12.15	10.13
9½	41.65	37.49	33.32	31.24	29.16	27.77	24.99	20.83	16.66	12.50	10.41
10	42.80	38.52	34.24	32.10	29.96	28.53	25.68	21.40	17.12	12.84	10.70
11	45.10	40.59	36.08	33.83	31.57	30.07	27.06	22.55	18.04	13.53	11.28
12	47.40	42.66	37.92	35.55	33.18	31.60	28.44	23.70	18.96	14.22	11.85
13	49.70	44.73	39.76	37.28	34.79	33.13	29.82	24.85	19.88	14.91	12.43
14	52.00	46.80	41.60	39.00	36.40	34.67	31.20	26.00	20.80	15.60	13.00
15	54.30	48.87	43.44	40.73	38.01	36.20	32.58	27.15	21.72	16.29	13.58
16	56.60	50.94	45.28	42.45	39.62	37.74	33.96	28.30	22.64	16.98	14.15
17	58.90	53.01	47.12	44.18	41.23	39.27	35.34	29.45	23.56	17.67	14.73
18	61.20	55.08	48.96	45.90	42.84	40.80	36.72	30.60	24.48	18.36	15.30
19	63.50	57.15	50.80	47.63	44.45	42.34	38.10	31.75	25.40	19.05	15.88
20	65.80	59.22	52.64	49.35	46.06	43.87	39.48	32.90	26.32	19.74	16.45

1⅛ INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3	45.90	41.31	36.72	34.42	32.13	30.60	27.54	22.95	18.36	13.77	11.48
3½	47.20	42.48	37.76	35.40	33.04	31.47	28.32	23.60	18.88	14.16	11.80
4	48.50	43.65	38.80	36.38	33.95	32.33	29.10	24.25	19.40	14.55	12.13
4½	49.80	44.82	39.84	37.35	34.86	33.20	29.88	24.90	19.92	14.94	12.45
5	51.10	45.99	40.88	38.33	35.77	34.07	30.66	25.55	20.44	15.33	12.78
5½	52.40	47.16	41.92	39.30	36.68	34.94	31.44	26.20	21.06	15.72	13.10
6	53.70	48.33	42.96	40.28	37.59	35.80	32.22	26.85	21.48	16.11	13.43
6½	55.00	49.50	44.00	41.25	38.50	36.67	33.00	27.50	22.00	16.50	13.75
7	56.30	50.67	45.04	42.23	39.41	37.54	33.78	28.15	22.52	16.89	14.08
7½	57.60	51.84	46.08	43.20	40.32	38.40	34.56	28.80	23.04	17.28	14.40
8	58.90	53.01	47.12	44.18	41.23	39.27	35.34	29.45	23.56	17.67	14.73
8½	60.20	54.18	48.16	45.15	42.14	40.14	36.12	30.10	24.08	18.06	15.05
9	61.50	55.35	49.20	46.13	43.05	41.00	36.90	30.75	24.60	18.45	15.38
9½	62.80	56.52	50.24	47.10	43.96	41.87	37.68	31.40	25.12	18.84	15.70
10	64.10	57.69	51.28	48.08	44.87	42.73	38.46	32.05	25.64	19.23	16.03
11	66.70	60.03	53.36	50.02	46.69	44.47	40.02	33.75	26.68	20.01	16.68
12	69.30	62.37	55.44	51.98	48.51	46.20	41.58	34.65	27.72	20.79	17.33
13	71.90	64.71	57.52	53.93	50.33	47.94	43.14	35.95	28.76	21.57	17.98
14	74.50	67.05	59.60	55.88	52.10	49.67	44.70	37.25	29.80	22.35	18.63
15	77.10	69.39	61.68	57.83	53.97	51.40	46.26	38.55	30.84	23.13	19.28
16	79.70	71.73	63.76	59.77	55.79	53.14	47.82	39.85	31.88	23.91	19.93
17	82.30	74.07	65.84	61.72	57.61	54.87	49.38	41.15	32.92	24.69	20.58
18	84.90	76.41	67.92	63.68	59.43	56.60	50.94	42.45	33.96	25.47	21.23
19	87.50	78.75	70.00	65.63	61.25	58.34	52.50	43.75	35.00	26.25	21.88
20	90.10	81.09	72.08	67.58	63.07	60.07	54.06	45.05	36.04	27.03	22.53

CUT THREAD MACHINE BOLTS

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

CUT THREAD MACHINE BOLTS 1-1/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3	54.45	49.01	43.46	40.84	38.12	36.30	32.67	27.23	21.78	16.34	13.61
3½	56.10	50.49	44.88	42.08	39.27	37.40	33.66	28.05	22.44	16.83	14.03
4	57.75	51.98	46.20	43.31	40.43	38.50	34.65	28.88	23.10	17.33	14.44
4½	59.40	53.46	47.52	44.55	41.58	39.60	35.64	29.70	23.76	17.82	14.85
5	61.05	54.95	48.84	45.79	42.74	40.70	36.63	30.53	24.42	18.32	15.27
5½	62.70	56.43	50.16	47.03	43.89	41.80	37.62	31.35	25.08	18.81	15.68
6	64.35	57.92	51.48	48.26	45.05	42.90	38.61	32.18	25.74	19.31	16.09
6½	66.00	59.40	52.80	49.50	46.20	44.00	39.60	33.00	26.40	19.80	16.50
7	67.65	60.89	54.12	50.74	47.36	45.10	40.59	33.83	27.06	20.30	16.91
7½	69.30	62.37	55.44	51.98	48.51	46.20	41.58	34.65	27.72	20.79	17.33
8	70.95	63.86	56.76	53.21	49.67	47.30	42.57	35.48	28.38	21.29	17.74
8½	72.60	65.34	58.08	54.45	50.82	48.40	43.56	36.30	29.04	21.78	18.15
9	74.25	66.83	59.40	55.69	51.98	49.50	44.55	37.13	29.70	22.28	18.56
9½	75.90	68.31	60.72	56.93	53.13	50.60	45.54	37.95	30.36	22.97	18.98
10	77.55	69.80	62.64	58.16	54.29	51.70	46.13	38.78	31.02	23.27	19.39
11	80.85	72.77	64.68	60.64	56.60	53.84	48.51	40.43	32.34	24.26	20.21
12	84.15	75.74	67.32	63.11	58.91	56.10	50.49	42.08	33.66	25.25	21.04
13	87.45	78.71	69.96	65.59	61.22	58.30	52.47	43.73	34.98	26.24	21.86
14	90.75	81.68	72.60	68.06	63.53	60 50	54.45	45.38	36.30	27.23	22.69
15	94.05	84.65	75.24	70.54	65.84	62.70	56.43	47.03	37.62	28.22	23.51
16	97.35	87.62	77.88	73.01	68.15	64.90	58.41	48.68	38.94	29.21	24.34
17	100.65	90.59	80.52	75.47	70.46	67.10	60.39	50.33	40.26	30.20	25.16
18	103.95	93.56	83.16	77.96	72.77	69.30	62.37	51.98	41.58	31.19	25.99
19	107.25	96.53	85.80	80.44	75.08	71.50	64.35	53.63	42.90	32.18	26.81
20	110.55	99.50	88.44	82.91	77.39	73.70	66.33	55.28	44.22	33.17	27.64

List prices are per 100 as adopted Dec. 8, 1932.

ROLLED THREAD MACHINE BOLTS

ROLLED THREAD MACHINE BOLTS 3/16 & 1/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	.95	.86	.76	.71	.67	.63	.57	.48	.38	.29	.24
1	1.00	.90	.80	.75	.70	.67	.60	.50	.40	.30	.25
1¼	1.10	.99	.88	.83	.77	.73	.66	.55	.44	.33	.28
1½	1.15	1.04	.92	.86	.81	.77	.69	.58	.46	.35	.29
2	1.30	1.17	1.04	.98	.91	.87	.78	.65	.53	.39	.33
2½	1.50	1.35	1.20	1.13	1.05	1.00	.90	.75	.60	.45	.38
3	1.65	1.49	1.32	1.24	1.16	1.10	.99	.83	.66	.50	.41
3½	1.80	1.62	1.44	1.35	1.26	1.20	1.08	.90	.72	.54	.45
4	2.15	1.94	1.72	1.61	1.51	1.43	1.29	1.08	.86	.65	.54
4½	2.30	2.07	1.84	1.73	1.61	1.53	1.38	1.15	.92	.69	.58
5	2.45	2.21	1.96	1.84	1.72	1.63	1.47	1.23	.98	.74	.61
5½	2.60	2.34	2.08	1.95	1.82	1.73	1.56	1.30	1.04	.78	.65
6	2.75	2.48	2.20	2.06	1.93	1.83	1.65	1.38	1.10	.83	.69

ROLLED THREAD MACHINE BOLTS 5/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	1.50	1.35	1.20	1.13	1.05	1.00	.90	.75	.60	.45	.38
1	1.55	1.40	1.24	1.16	1.09	1.03	.93	.78	.62	.47	.39
1¼	1.60	1.44	1.28	1.20	1.12	1.07	.96	.80	.64	.48	.40
1½	1.70	1.53	1.36	1.28	1.19	1.13	1.02	.85	.68	.51	.43
2	1.95	1.76	1.56	1.46	1.37	1.30	1.17	.98	.78	.59	.49
2½	2.15	1.94	1.72	1.61	1.51	1.43	1.29	1.08	.86	.65	.54
3	2.35	2.12	1.88	1.76	1.65	1.57	1.41	1.18	.94	.71	.59
3½	2.55	2.30	2.04	1.91	1.79	1.70	1.53	1.28	1.02	.77	.64
4	2.75	2.48	2.20	2.06	1.93	1.83	1.65	1.38	1.10	.83	.69
4½	3.10	2.79	2.48	2.33	2.17	2.07	1.86	1.55	1.24	.93	.78
5	3.30	2.97	2.64	2.48	2.31	2.20	1.98	1.65	1.32	.99	.83
5½	3.50	3.15	2.80	2.63	2.45	2.33	2.10	1.75	1.40	1.05	.88
6	3.70	3.33	2.96	2.78	2.59	2.47	2.22	1.85	1.48	1.11	.93

THE SYMBOL OF PRECISION WORKMANSHIP

Oliver

AN OUTSTANDING SPECIFICATION FOR THREE QUARTERS OF A CENTURY

To many users of quality bolts, nuts and rivets, the familiar symbol "O" on the end of each unit has stood for everything that's best in the world of bolts and nuts for 75 years.

Every detail in the manufacture of Oliver Bolts is one of most meticulous care from the metallurgical laboratory where exacting analyses of steel are developed to the wrapping, packing and shipping.

Every box is tightly packed for proper shipment—even the labelling on each carton has been especially selected to assure maximum visibility in the darkest warehouse. You will find it both pleasurable and profitable to stock and sell Oliver Bolts, Nuts and Rivets.

OLIVER BOLTS AND NUTS

OLIVER IRON AND STEEL CORPORATION
PITTSBURGH, PA.

ROLLED THREAD MACHINE BOLTS

–Square Heads and Square Nuts–

3/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	2.00	1.80	1.60	1.50	1.40	1.33	1.20	1.00	.80	.60	.50
1	2.05	1.85	1.64	1.54	1.44	1.37	1.23	1.03	.82	.62	.51
1¼	2.15	1.94	1.72	1.61	1.51	1.43	1.29	1.08	.86	.65	.54
1½	2.30	2.07	1.84	1.73	1.61	1.53	1.38	1.15	.92	.69	.58
2	2.55	2.30	2.04	1.91	1.79	1.70	1.53	1.28	1.02	.77	.64
2½	2.80	2.52	2.24	2.10	1.96	1.87	1.68	1.40	1.12	.84	.70
3	3.10	2.79	2.48	2.33	2.17	2.07	1.86	1.55	1.24	.93	.78
3½	3.35	3.02	2.68	2.51	2.35	2.23	2.01	1.68	1.34	1.01	.84
4	3.60	3.24	2.88	2.70	2.52	2.40	2.16	1.80	1.44	1.08	.90
4½	3.85	3.47	3.08	2.89	2.70	2.57	2.31	1.93	1.54	1.16	.96
5	4.20	3.78	3.36	3.15	2.94	2.80	2.52	2.10	1.68	1.26	1.05
5½	4.45	4.01	3.56	3.34	3.12	2.97	2.67	2.23	1.78	1.34	1.11
6	4.70	4.23	3.76	3.53	3.29	3.13	2.82	2.35	1.88	1.41	1.18

1/2 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	4.15	3.74	3.32	3.11	2.91	2.77	2.49	2.08	1.66	1.25	1.04
1¼	4.30	3.87	3.44	3.23	3.01	2.87	2.58	2.15	1.72	1.29	1.08
1½	4.50	4.05	3.60	3.38	3.15	3.00	2.70	2.25	1.80	1.35	1.13
2	4.85	4.37	3.88	3.64	3.40	3.23	2.91	2.43	1.94	1.46	1.21
2½	5.15	4.64	4.12	3.86	3.61	3.43	3.09	2.58	2.06	1.55	1.29
3	5.50	4.95	4.40	4.13	3.85	3.67	3.30	2.75	2.20	1.65	1.38
3½	5.85	5.27	4.68	4.39	4.10	3.90	3.51	2.93	2.34	1.76	1.46
4	6.20	5.58	4.96	4.65	4.34	4.13	3.72	3.10	2.48	1.86	1.55
4½	6.55	5.90	5.24	4.91	4.59	4.37	3.93	3.28	2.62	1.97	1.64
5	6.90	6.21	5.52	5.18	4.83	4.60	4.14	3.45	2.76	2.07	1.73
5½	7.25	6.53	5.80	5.44	5.08	4.83	4.35	3.63	2.90	2.18	1.81
6	7.60	6.84	6.08	5.70	5.32	5.07	4.56	3.80	3.04	2.28	1.90

7/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	3.55	3.20	2.84	2.66	2.49	2.37	2.13	1.78	1.42	1.07	.89
1¼	3.70	3.33	2.96	2.78	2.59	2.47	2.22	1.85	1.48	1.11	.93
1½	3.85	3.47	3.08	2.89	2.70	2.57	2.31	1.93	1.54	1.16	.96
2	4.10	3.69	3.28	3.08	2.87	2.73	2.46	2.05	1.64	1.23	1.03
2½	4.40	3.96	3.52	3.30	3.08	2.93	2.64	2.20	1.76	1.32	1.10
3	4.65	4.19	3.72	3.49	3.26	3.10	2.79	2.33	1.86	1.40	1.16
3½	4.95	4.46	3.96	3.71	3.47	3.30	2.97	2.48	1.98	1.49	1.24
4	5.25	4.73	4.20	3.94	3.68	3.50	3.15	2.63	2.10	1.58	1.31
4½	5.55	5.00	4.44	4.16	3.89	3.70	3.33	2.78	2.22	1.67	1.39
5	5.85	5.27	4.68	4.39	4.10	3.90	3.51	2.93	2.34	1.76	1.46
5½	6.15	5.54	4.92	4.61	4.31	4.10	3.69	3.08	2.46	1.85	1.54
6	6.45	5.81	5.16	4.84	4.52	4.30	3.87	3.23	2.58	1.94	1.61

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 60 per cent is desired on 7/16-inch diameter rolled thread machine bolts 3½ inches in length —find the proper length line and follow it along until the 60 per cent column is reached where the correct net price of $1.98 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Dec. 8, 1932.

PLOW AND CULTIVATOR BOLTS—With American Standard Square Nuts

IMPORTANT — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The

PLOW AND CULTIVATOR BOLTS—With American Standard Square Nuts

IMPORTANT — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per 100 as adopted April 1, 1927

5/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	2.05	1.85	1.64	1.54	1.44	1.37	1.23	1.03	.82	.62	.51
1	2.15	1.94	1.72	1.61	1.51	1.43	1.29	1.08	.86	.65	.54
1¼	2.30	2.07	1.84	1.73	1.61	1.53	1.38	1.15	.92	.69	.58
1½	2.45	2.21	1.96	1.84	1.72	1.63	1.47	1.23	.98	.74	.61
1¾	2.60	2.34	2.08	1.95	1.82	1.73	1.56	1.30	1.04	.78	.65
2	2.75	2.48	2.20	2.06	1.93	1.83	1.65	1.38	1.10	.83	.69
2¼	2.95	2.66	2.36	2.21	2.07	1.97	1.77	1.48	1.18	.89	.74
2½	3.15	2.84	2.52	2.36	2.21	2.10	1.89	1.58	1.26	.95	.79
2¾	3.35	3.02	2.68	2.51	2.35	2.23	2.01	1.68	1.34	1.01	.84
3	3.60	3.24	2.88	2.70	2.52	2.40	2.16	1.80	1.44	1.08	.90
3¼	3.85	3.47	3.08	2.89	2.70	2.57	2.31	1.93	1.54	1.16	.96
3½	4.30	3.87	3.44	3.23	3.01	2.87	2.58	2.15	1.72	1.29	1.08
3¾	4.75	4.28	3.80	3.56	3.33	3.17	2.85	2.38	1.90	1.43	1.19
4	5.25	4.73	4.20	3.94	3.68	3.50	3.15	2.63	2.10	1.58	1.31
4½	5.75	5.18	4.60	4.31	4.03	3.83	3.45	2.88	2.30	1.73	1.44
5	6.25	5.63	5.00	4.69	4.38	4.17	3.75	3.13	2.50	1.88	1.56
5½	6.75	6.08	5.40	5.06	4.73	4.50	4.05	3.38	2.70	2.03	1.69
6	7.25	6.53	5.80	5.44	5.08	4.83	4.35	3.63	2.90	2.18	1.81

3/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	2.45	2.21	1.96	1.84	1.72	1.63	1.47	1.23	.98	.74	.61
1	2.60	2.34	2.08	1.95	1.82	1.73	1.56	1.30	1.04	.78	.65
1¼	2.75	2.48	2.20	2.06	1.93	1.83	1.65	1.38	1.10	.83	.69
1½	2.90	2.61	2.32	2.18	2.03	1.93	1.74	1.45	1.16	.87	.73
1¾	3.05	2.75	2.44	2.29	2.14	2.03	1.83	1.53	1.22	.92	.76
2	3.20	2.88	2.56	2.40	2.24	2.13	1.92	1.60	1.28	.96	.80
2¼	3.35	3.02	2.68	2.51	2.35	2.23	2.01	1.68	1.34	1.01	.84
2½	3.50	3.15	2.80	2.63	2.45	2.33	2.10	1.75	1.40	1.05	.88
2¾	3.75	3.38	3.00	2.81	2.63	2.50	2.25	1.88	1.50	1.13	.94
3	4.00	3.60	3.20	3.00	2.80	2.67	2.40	2.00	1.60	1.20	1.00
3¼	4.40	3.96	3.52	3.30	3.08	2.93	2.64	2.20	1.76	1.32	1.10
3½	4.90	4.41	3.92	3.68	3.43	3.27	2.94	2.45	1.96	1.47	1.23
3¾	5.40	4.86	4.32	4.05	3.78	3.60	3.24	2.70	2.16	1.62	1.35
4	5.95	5.36	4.76	4.46	4.17	3.97	3.57	2.98	2.38	1.79	1.49
4½	6.50	5.85	5.20	4.88	4.55	4.33	3.90	3.25	2.60	1.95	1.63
5	7.15	6.44	5.72	5.36	5.01	4.77	4.29	3.58	2.86	2.15	1.79
5½	7.90	7.11	6.32	5.93	5.53	5.27	4.74	3.95	3.16	2.37	1.98
6	8.70	7.83	6.96	6.53	6.09	5.80	5.22	4.35	3.48	2.61	2.18

7/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	3.35	3.02	2.68	2.51	2.35	2.23	2.01	1.68	1.34	1.01	.84
1	3.55	3.20	2.84	2.66	2.49	2.37	2.13	1.78	1.42	1.07	.89
1¼	3.75	3.38	3.00	2.81	2.63	2.50	2.25	1.88	1.50	1.13	.94
1½	4.00	3.60	3.20	3.00	2.80	2.67	2.40	2.00	1.60	1.20	1.00
1¾	4.25	3.83	3.40	3.19	2.98	2.83	2.55	2.13	1.70	1.28	1.06
2	4.50	4.05	3.60	3.38	3.15	3.00	2.70	2.25	1.80	1.35	1.13
2¼	4.75	4.28	3.80	3.56	3.33	3.17	2.85	2.38	1.90	1.43	1.19
2½	5.00	4.50	4.00	3.75	3.50	3.33	3.00	2.50	2.00	1.50	1.25
2¾	5.30	4.77	4.24	3.98	3.71	3.53	3.18	2.65	2.12	1.59	1.33
3	5.65	5.09	4.52	4.24	3.96	3.77	3.39	2.83	2.26	1.70	1.41
3¼	6.00	5.40	4.80	4.50	4.20	4.00	3.60	3.00	2.40	1.80	1.50
3½	6.45	5.81	5.16	4.84	4.52	4.30	3.87	3.23	2.58	1.94	1.61
3¾	6.95	6.26	5.56	5.21	4.87	4.63	4.17	3.48	2.78	2.09	1.74
4	7.55	6.80	6.04	5.66	5.29	5.03	4.53	3.78	3.02	2.27	1.89
4½	8.15	7.34	6.52	6.11	5.71	5.43	4.89	4.08	3.26	2.45	2.04
5	8.75	7.88	7.00	6.56	6.13	5.83	5.25	4.38	3.50	2.63	2.19
5½	9.45	8.51	7.56	7.09	6.62	6.30	5.67	4.73	3.78	2.84	2.36
6	10.30	9.27	8.24	7.73	7.21	6.87	6.18	5.15	4.12	3.09	2.58

1/2 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	4.75	4.28	3.80	3.56	3.33	3.17	2.85	2.38	1.90	1.43	1.19
1	5.00	4.50	4.00	3.75	3.50	3.33	3.00	2.50	2.00	1.50	1.25
1¼	5.25	4.73	4.20	3.94	3.68	3.50	3.15	2.63	2.10	1.58	1.31
1½	5.50	4.95	4.40	4.13	3.85	3.67	3.30	2.75	2.20	1.65	1.38
1¾	5.75	5.18	4.60	4.31	4.03	3.83	3.45	2.88	2.30	1.73	1.44
2	6.00	5.40	4.80	4.50	4.20	4.00	3.60	3.00	2.40	1.80	1.50
2¼	6.30	5.67	5.04	4.73	4.41	4.20	3.78	3.15	2.52	1.89	1.58
2½	6.60	5.94	5.28	4.95	4.62	4.40	3.96	3.30	2.64	1.98	1.65
2¾	6.90	6.21	5.52	5.18	4.83	4.60	4.14	3.45	2.76	2.07	1.73
3	7.25	6.53	5.80	5.44	5.08	4.83	4.35	3.63	2.90	2.18	1.81
3¼	7.65	6.89	6.12	5.74	5.36	5.10	4.59	3.83	3.06	2.30	1.91
3½	8.25	7.43	6.60	6.19	5.78	5.50	4.95	4.13	3.30	2.48	2.06
3¾	8.90	8.01	7.12	6.68	6.23	5.93	5.34	4.45	3.56	2.67	2.23
4	9.60	8.64	7.68	7.20	6.72	6.40	5.76	4.80	3.84	2.88	2.40
4½	10.35	9.32	8.28	7.76	7.25	6.90	6.21	5.18	4.14	3.11	2.59
5	11.10	9.99	8.88	8.33	7.77	7.40	6.66	5.55	4.44	3.33	2.78
5½	11.90	10.71	9.52	8.93	8.33	7.93	7.14	5.95	4.76	3.57	2.98
6	12.75	11.48	10.20	9.56	8.93	8.50	7.65	6.38	5.10	3.83	3.19

PLOW AND CULTIVATOR BOLTS

With American Standard Square Nuts

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 60 per cent is desired on ¾-in. diameter plow bolts 1¼ inches in length—find the proper length line and follow it along until the 60 per cent column is reached where the correct net price of $6.00 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100 pieces** as adopted April 1, 1927.

9/16 AND 5/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1¼	10.40	9.36	8.32	7.80	7.28	6.93	6.24	5.20	4.16	3.12	2.60
1½	10.80	9.72	8.64	8.10	7.56	7.20	6.48	5.40	4.32	3.24	2.70
1¾	11.20	10.08	8.96	8.40	7.84	7.47	6.72	5.60	4.48	3.36	2.80
2	11.60	10.44	9.28	8.70	8.12	7.73	6.96	5.80	4.64	3.48	2.90
2¼	12.00	10.80	9.60	9.00	8.40	8.00	7.20	6.00	4.80	3.60	3.00
2½	12.40	11.16	9.92	9.30	8.68	8.27	7.44	6.20	4.96	3.72	3.10
2¾	12.80	11.52	10.24	9.60	8.96	8.53	7.68	6.40	5.12	3.84	3.20
3	13.20	11.88	10.56	9.90	9.24	8.80	7.92	6.60	5.28	3.96	3.30
3¼	13.60	12.24	10.88	10.20	9.52	9.07	8.16	6.80	5.44	4.08	3.40
3½	14.00	12.60	11.20	10.50	9.80	9.33	8.40	7.50	5.60	4.20	3.50
3¾	14.40	12.96	11.52	10.80	10.08	9.60	8.64	7.20	5.76	4.32	3.60
4	14.80	13.32	11.84	11.10	10.36	9.87	8.88	7.40	5.92	4.44	3.70
4½	15.80	14.22	12.64	11.85	11.06	10.53	9.48	7.90	6.32	4.74	3.95
5	16.80	15.12	13.44	12.60	11.76	11.20	10.08	8.40	6.72	5.04	4.20
5½	17.80	16.02	14.24	13.35	12.46	11.87	10.68	8.90	7.12	5.34	4.45
6	18.80	16.92	15.04	14.10	13.16	12.53	11.28	9.40	7.52	5.64	4.70

3/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1¼	15.00	13.50	12.00	11.25	10.50	10.00	9.00	7.50	6.00	4.50	3.75
1½	15.70	14.13	12.56	11.78	10.99	10.47	9.42	7.85	6.28	4.71	3.93
1¾	16.40	14.76	13.12	12.30	11.48	10.93	9.84	8.20	6.56	4.92	4.10
2	17.10	15.39	13.68	12.83	11.97	11.40	10.26	8.55	6.84	5.13	4.28
2¼	17.80	16.02	14.24	13.35	12.46	11.87	10.68	8.90	7.12	5.34	4.45
2½	18.50	16.65	14.80	13.88	12.95	12.33	11.10	9.25	7.40	5.55	4.63
2¾	19.20	17.28	15.36	14.40	13.44	12.80	11.52	9.60	7.68	5-76	4.80
3	19.90	17.91	15.92	14.93	13.93	13.27	11.94	9.95	7.96	5.97	4.98
3¼	21.05	18.95	16.84	15.79	14.74	14.03	12.63	10.53	8.42	6.32	5.26
3½	22.20	19.98	17.76	16.65	15.54	14.80	13.32	11.10	8.88	6.66	5.55
3¾	23.35	21.02	18.68	17.51	16.35	15.57	14.01	11.68	9.34	7.01	5.84
4	24.50	22.05	19.60	18.38	17.15	16.33	14.70	12.25	9.80	7.35	6.13
4½	26.10	23.49	20.88	19.58	18.27	17.40	15.66	13.05	10.44	7.83	6.53
5	27.70	24.93	22.16	20.78	19.39	18.47	16.62	13.85	11.08	8.31	6.93
5½	29.30	26.37	23.44	21.98	20.51	19.53	17.58	14.65	11.72	8.79	7.33
6	30.90	27.81	24.72	23.18	21.63	20.60	18.54	15.45	12.36	9.27	7.73

ALLEN

Boxed Screw Assortment

Counter sales-maker

creating new outlets

for hollow screws « « «

This hand-picked Assortment of Hollow Screws features sizes suitable for use in the shop, the garage, the home, the farm — everywhere tools are used. It's a profitable item itself—in immediate sales — *and* it "samples" the screws to prospective users who develop into quantity buyers. Diagram inside of cover lists the sizes of screws and wrenches contained in the box. Write for full particulars to

THE ALLEN MFG. COMPANY
HARTFORD, CONN. U. S. A.

CLARK PRODUCTS FOR EVERY NEED

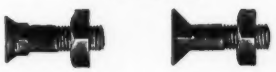
When you stock and sell THE CLARK LINE you have the assurance that you are giving your trade full quality value that will give complete satisfaction.

Investigate THE CLARK LINE now.

CARRIAGE BOLTS

MACHINE BOLTS

PLOW BOLTS



COACH AND LAG SCREWS

ELEVATOR BOLTS

SET SCREWS

CAP SCREWS

RIVETS

SPRING CENTER BOLTS

HEXAGON NUTS

THUMB NUTS

SPECIAL BOLTS

We also specialize in difficult designs

MILLDALE, CONN. CLARK BROS BOLT CO.

CLARK BOLTS AND NUTS

SEMI-FINISHED HEXAGON TAPPED NUTS

American Standard and Jam Sizes—Heavy (U.S.S.)

Bolt Inches	List per 100	Discounts									
		10	20	25	30	33⅓	40	50	60	70	75
1/4	.86	.77	.69	.65	.60	.57	.52	.43	.34	.26	.22
5/16	1.15	1.04	.92	.86	.81	.77	.69	.58	.46	.35	.29
3/8	1.55	1.40	1.24	1.16	1.09	1.03	.93	.78	.62	.47	.39
7/16	2.19	1.97	1.75	1.64	1.53	1.46	1.31	1.10	.88	.66	.55
1/2	2.76	2.48	2.21	2.07	1.93	1.84	1.66	1.38	1.10	.83	.69
9/16	3.80	3.42	3.04	2.85	2.66	2.53	2.28	1.90	1.52	1.14	.95
5/8	4.60	4.14	3.68	3.45	3.22	3.06	2.76	2.30	1.84	1.38	1.15
3/4	6.56	5.90	5.25	4.92	4.59	4.37	3.94	3.28	2.62	1.97	1.64
7/8	10.06	9.05	8.05	7.55	7.04	6.71	6.04	5.03	4.02	3.02	2.52
1	13.80	12.42	11.04	10.35	9.66	9.20	8.28	6.90	5.52	4.14	3.45
1 1/8	19.20	17.28	15.36	14.40	13.44	12.80	11.52	9.60	7.68	5.76	4.80
1 1/4	26.11	23.50	20.89	19.58	18.28	17.40	15.67	13.06	10.44	7.83	6.53

American Standard Sizes—Light and Light Jam (S.A.E.)

Bolt Inches	List per 100	Discounts									
		10	20	25	30	33⅓	40	50	60	70	75
1/4	.75	.68	.60	.56	.53	.50	.45	.38	.30	.23	.19
5/16	.86	.77	.69	.65	.60	.57	.52	.43	.34	.26	.22
3/8	1.09	.98	.87	.82	.76	.73	.65	.55	.44	.33	.27
7/16	1.50	1.35	1.20	1.13	1.05	1.00	.90	.75	.60	.45	.38
1/2	1.90	1.71	1.52	1.43	1.33	1.27	1.14	.95	.76	.57	.48
9/16	2.88	2.59	2.30	2.16	2.02	1.92	1.73	1.44	1.15	.86	.72
5/8	3.68	3.31	2.94	2.76	2.58	2.45	2.21	1.84	1.47	1.10	.92
3/4	5.75	5.18	4.60	4.31	4.03	3.83	3.45	2.88	2.30	1.73	1.44
7/8	9.20	8.28	7.36	6.90	6.44	6.13	5.52	4.60	3.68	2.76	2.30
1	13.34	12.01	10.67	10.01	9.34	8.88	8.00	6.67	5.34	4.00	3.34

American Standard and Jam Sizes—Regular

Bolt Inches	List per 100	Discounts									
		10	20	25	30	33⅓	40	50	60	70	75
1/4	.75	.68	.60	.56	.53	.50	.45	.38	.30	.23	.19
5/16	1.04	.94	.83	.78	.73	.69	.62	.52	.42	.31	.26
3/8	1.38	1.24	1.10	1.04	.97	.92	.83	.69	.55	.41	.35
7/16	1.84	1.66	1.47	1.38	1.29	1.23	1.10	.92	.74	.55	.46
1/2	2.59	2.33	2.07	1.94	1.81	1.72	1.55	1.30	1.04	.78	.65
9/16	3.45	3.11	2.76	2.59	2.42	2.30	2.07	1.73	1.38	1.04	.86
5/8	4.37	3.93	3.50	3.28	3.06	2.91	2.62	2.19	1.75	1.31	1.09
3/4	6.33	5.70	5.06	4.75	4.43	4.22	3.80	3.17	2.53	1.90	1.58
7/8	9.78	8.80	7.82	7.34	6.85	6.52	5.87	4.89	3.91	2.93	2.45
1	13.57	12.21	10.86	10.18	9.50	9.05	8.14	6.79	5.43	4.07	3.39

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on ¼-inch semi-finished hexagon tapped nuts—find the proper size and follow it along until the 40 per cent column is reached where the correct net price of .45 will be found. Other discounts on varying sizes are determined in the same manner. **List prices are per 100** as adopted July 1, 1931.

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

SEMI-FINISHED HEXAGON TAPPED CASTELLATED NUTS

American Standard Sizes—Light (S.A.E.)

Bolt Inches	List per 100	Discounts									
		10	20	25	30	33⅓	40	50	60	70	75
1/4	1.32	1.19	1.06	.99	.92	.88	.79	.66	.53	.40	.33
5/16	1.55	1.40	1.24	1.16	1.09	1.03	.93	.78	.62	.47	.39
3/8	1.84	1.66	1.47	1.38	1.29	1.23	1.10	.92	.74	.55	.46
7/16	2.30	2.07	1.84	1.73	1.61	1.53	1.38	1.15	.92	.69	.58
1/2	3.28	2.95	2.62	2.46	2.30	2.18	1.97	1.64	1.31	.98	.82
9/16	4.83	4.35	3.86	3.62	3.38	3.22	2.90	2.42	1.93	1.45	1.21
5/8	5.64	5.08	4.51	4.23	3.95	3.76	3.38	2.82	2.26	1.69	1.41
3/4	8.97	8.07	7.18	6.73	6.28	5.97	5.38	4.49	3.59	2.69	2.24
7/8	12.36	11.12	9.89	9.27	8.65	8.23	7.42	6.18	4.94	3.71	3.09
1	18.40	16.56	14.72	13.80	12.88	12.25	11.04	9.20	7.36	5.52	4.60

This chart provides a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on ¼-inch semi-finished hexagon tapped castellated nuts—find the proper size and follow it along until the 40 per cent column is reached where the correct net price of .79 will be found. Other discounts on varying sizes are determined in the same manner. **List prices are per 100** as adopted April 1, 1927.

Bolt Simplification Schedules Adopted

On November 1, 1937 the bolt manufacturing industry adopted four important bolt simplification schedules. These cover a recommended simplified program covering: Square Head Carriage Bolts; Square Head Machine Bolts; Hexagon Head Machine Bolts and Lag Bolts. Detailed tables giving the lengths and sizes are published in the First Section of this issue, dated Dec. 30, 1937 on pages 30 and 31.

This simplification program came after many months of intensive cooperative effort within the bolt manufacturing industry working through the American Institute of Bolt, Nut & Rivet Manufacturers in harmony with the Department of Commerce.

If any of our readers miss these bolt simplification tables or would like an extra file copy of these schedules they may obtain this data by writing

Hardware Age Editorial Dept.
239 West 39th St. New York City

ALL KINDS
and Sizes
BOLTS AND NUTS
- Carriage
- Machine
- Lag
- Plow
- Automotive
- Track
- Hanger
- Blank
- Threaded rods
- Specials
- Rivets
- Hot Pressed nuts
- Cold Punched nuts
- Boss Lock nuts

QUALITY PRODUCTS
Ask your jobber for them or write
BOSS BOLT & NUT COMPANY
3403 W. 47th St. Chicago, Ill.

SPRING WASHERS—(Carbon Steel) Plain Type B

Kantlink, Antilink, Neverslip, Knolink, Tangle-Proof, Handy, etc.

Screw or Bolt Size	Section Size	List per 1,000	Weight per 1,000	S. A. E. Classification	DISCOUNTS								
					10	20	30	33⅓	40	50	60	70	75
No. 2	1/32 x .022	2.45	1 oz.	Standard	2.21	1.96	1.72	1.63	1.47	1.23	.98	.74	.61
	.022 x .022	2.45	½ oz.	Light	2.21	1.96	1.72	1.63	1.47	1.23	.98	.74	.61
	1/32 x 1/32	2.45	2 oz.	Heavy	2.21	1.96	1.72	1.63	1.47	1.23	.98	.74	.61
No. 4	1/32 x 1/32	2.30	2 oz.	Standard	2.07	1.84	1.61	1.53	1.38	1.15	.92	.69	.58
	1/32 x .022	2.30	1⅓ oz.	Light	2.07	1.84	1.61	1.53	1.38	1.15	.92	.69	.58
	3/64 x 1/32	2.30	3½ oz.	Heavy	2.07	1.84	1.61	1.53	1.38	1.15	.92	.69	.58
No. 6	3/64 x 1/32	2.15	4 oz.	Standard	1.94	1.72	1.51	1.43	1.29	1.08	.86	.65	.54
	1/32 x 1/32	2.10	2½ oz.	Light	1.89	1.68	1.47	1.40	1.26	1.05	.84	.63	.53
	3/64 x 3/64	2.15	5 oz.	Heavy	1.94	1.72	1.51	1.43	1.29	1.08	.86	.65	.54
No. 8	3/64 x 3/64	1.95	7 oz.	Standard	1.76	1.56	1.37	1.30	1.17	.98	.78	.59	.49
	3/64 x 1/32	1.95	5 oz.	Light	1.76	1.56	1.37	1.30	1.17	.98	.78	.59	.49
	1/16 x 3/64	1.95	10 oz.	Heavy	1.76	1.56	1.37	1.30	1.17	.98	.78	.59	.49
No. 10 & 3/16 in.	1/16 x 3/64	1.75	11 oz.	Standard	1.58	1.40	1.23	1.17	1.05	.88	.70	.53	.44
	3/64 x 3/64	1.75	8 oz.	Light	1.58	1.40	1.23	1.17	1.05	.88	.70	.53	.44
	1/16 x 1/16	1.75	15 oz.	Heavy	1.58	1.40	1.23	1.17	1.05	.88	.70	.53	.44
No. 12	1/16 x 1/16	1.95	16 oz.	Standard	1.76	1.56	1.37	1.30	1.17	.98	.78	.59	.49
	1/16 x 3/64	1.95	12¾ oz.	Light	1.76	1.56	1.37	1.30	1.17	.98	.78	.59	.49
	5/64 x 1/16	2.00	20 oz.	Heavy	1.80	1.60	1.40	1.33	1.20	1.00	.80	.60	.50
1/4 in.	3/32 x 1/16	2.25	30 oz.	Standard	2.03	1.80	1.58	1.50	1.35	1.13	.90	.68	.56
	3/32 x 3/64	2.10	22 oz.	Light	1.89	1.68	1.47	1.40	1.26	1.05	.84	.63	.53
	3/32 x 5/64	2.35	36 oz.	Heavy	2.12	1.88	1.65	1.57	1.41	1.18	.94	.71	.59
5/16 in.	1/8 x 1/16	3.00	3 lbs. 1 oz.	Standard	2.70	2.40	2.10	2.00	1.80	1.50	1.20	.90	.75
	1/8 x 3/64	2.75	2 lbs. 5 oz.	Light	2.48	2.20	1.93	1.83	1.69	1.38	1.10	.83	.69
	1/8 x 3/32	3.35	4 lbs. 7 oz.	Heavy	3.02	2.68	2.35	2.23	2.01	1.68	1.34	1.01	.84
3/8 in.	1/8 x 3/32	3.75	5 lbs.	Standard	3.38	3.00	2.63	2.50	2.25	1.88	1.50	1.13	.94
	1/8 x 1/16	3.60	3 lbs. 8 oz.	Light	3.24	2.88	2.52	2.40	2.16	1.80	1.44	1.08	.90
	1/8 x 1/8	4.80	7 lbs. 8 oz.	Heavy	4.32	3.84	3.36	3.20	2.88	2.40	1.92	1.44	1.20
7/16 in.	5/32 x 1/8	6.40	10 lbs. 12 oz.	Standard	5.76	5.12	4.48	4.26	3.84	3.20	2.56	1.92	1.60
	5/32 x 1/16	5.15	5 lbs.	Light	4.64	4.12	3.61	3.43	3.09	2.58	2.06	1.55	1.29
	5/32 x 5/32	8.30	12 lbs. 13 oz.	Heavy	7.47	6.64	5.81	5.53	4.98	4.15	3.32	2.49	2.08
1/2 in.	11/64 x 1/8	7.60	13 lbs. 1 oz.	Standard	6.84	6.08	5.32	5.06	4.56	3.80	3.04	2.28	1.90
	11/64 x 1/16	5.80	6 lbs. 2 oz.	Light	5.22	4.64	4.06	3.86	3.48	2.90	2.32	1.74	1.45
	11/64 x 11/64	11.90	17 lbs. 4 oz.	Heavy	10.71	9.52	8.33	7.93	7.14	5.95	4.76	3.57	2.98
9/16 in.	3/16 x 1/8	10.25	15 lbs. 10 oz.	Standard	9.23	8.20	7.18	6.83	6.15	5.13	4.10	3.08	2.56
	3/16 x 3/32	8.40	11 lbs. 8 oz.	Light	7.56	6.72	5.88	5.59	5.04	4.20	3.36	2.52	2.10
	3/16 x 3/16	16.35	23 lbs. 11 oz.	Heavy	14.72	13.08	11.45	10.89	9.81	8.18	6.54	4.91	4.09
5/8 in.	13/64 x 5/32	15.80	23 lbs. 12 oz.	Standard	14.22	12.64	11.06	10.52	9.48	7.90	6.32	4.74	3.95
	13/64 x 3/32	12.50	14 lbs. 5 oz.	Light	11.25	10.00	8.75	8.33	7.50	6.25	5.00	3.75	3.13
	13/64 x 13/64	20.80	31 lbs. 15 oz.	Heavy	18.72	16.64	14.56	13.87	12.48	10.40	8.32	6.24	5.20
11/16 in.	7/32 x 3/16	20.80	35 lbs.	Standard	18.72	16.64	14.56	13.87	12.48	10.40	8.32	6.24	5.20
	7/32 x 1/8	18.80	21 lbs. 15 oz.	Light	16.92	15.04	13.16	12.52	11.28	9.40	7.52	5.64	4.70
	7/32 x 7/32	27.00	39 lbs. 14 oz.	Heavy	24.30	21.60	18.90	18.00	16.20	13.50	10.80	8.10	6.75
3/4 in.	1/4 x 3/16	25.60	43 lbs.	Standard	23.04	20.48	17.92	17.07	15.36	12.80	10.24	7.68	6.40
	1/4 x 1/8	20.70	27 lbs. 14 oz.	Light	18.63	16.56	14.49	13.79	12.42	10.35	8.28	6.21	5.18
	1/4 x 1/4	34.00	55 lbs. 8 oz.	Heavy	30.60	27.20	23.80	22.67	20.40	17.00	13.60	10.20	8.50
7/8 in.	17/64 x 3/16	39.30	51 lbs. 8 oz.	Standard	35.37	31.44	27.51	26.20	23.58	19.69	15.72	11.79	9.83
	17/64 x 5/32	37.50	42 lbs.	Light	33.75	30.00	26.25	25.00	22.50	18.75	15.00	11.25	9.38
	17/64 x 17/64	51.60	73 lbs.	Heavy	46.44	41.28	36.12	34.40	30.96	25.80	20.64	15.48	12.90
1 in.	5/16 x 1/4	65.70	90 lbs. 13 oz.	Standard	59.13	52.56	45.99	43.80	39.42	32.85	26.28	19.71	16.43
	5/16 x 3/16	60.00	64 lbs. 14 oz.	Light	54.00	48.00	42.00	40.00	36.00	30.00	24.00	18.00	15.00
	5/16 x 5/16	71.00	113 lbs. 14 oz.	Heavy	63.90	56.80	49.70	47.33	42.60	35.50	28.40	21.30	17.75
1 1/8 in.	3/8 x 1/4	90.00	125 lbs.	Standard	81.00	72.00	63.00	60.00	54.00	45.00	36.00	27.00	22.50
	3/8 x 3/16	64.00	96 lbs.	Light	57.60	51.20	44.80	42.66	38.40	32.00	25.60	19.20	16.00
	3/8 x 3/8	109.05	191 lbs.	Heavy	98.15	87.24	76.34	72.70	65.43	54.53	43.62	32.72	27.26
1 1/4 in.	7/16 x 1/4	124.00	161 lbs. 8 oz.	Standard	111.60	99.20	86.80	82.66	74.40	62.00	49.60	37.20	31.00
	7/16 x 3/16	86.00	120 lbs.	Light	77.40	68.80	60.20	57.33	51.60	43.00	34.40	25.80	21.50
	7/16 x 5/16	128.00	197 lbs. 6 oz.	Heavy	115.20	102.40	89.60	85.32	76.80	64.00	51.20	38.40	32.00
1 3/8 in.	7/16 x 5/16	140.00	214 lbs. 4 oz.	Standard	126.00	112.00	98.00	93.32	84.00	70.00	56.00	42.00	35.00
	7/16 x 1/4	136.00	175 lbs.	Light	122.40	108.80	95.20	90.66	81.60	68.00	54.40	40.80	34.00
	7/16 x 3/8	144.00	241 lbs. 14 oz.	Heavy	129.60	115.20	100.80	96.00	86.40	72.00	57.60	43.20	36.00
1 1/2 in.	1/2 x 5/16	170.00	282 lbs.	Standard	153.00	136.00	119.00	113.33	102.00	85.00	68.00	51.00	42.50
	1/2 x 1/4	165.00	214 lbs. 8 oz.	Light	148.50	132.00	115.50	110.00	99.00	82.50	66.00	49.50	41.25
	1/2 x 3/8	195.20	338 lbs. 14 oz.	Heavy	175.68	156.16	136.64	130.00	117.12	97.60	78.08	58.56	48.80

IMPORTANT!—All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

SPRING WASHERS

LOCK WASHERS

NUT LOCKS

GENUINE "KEYSTONE" LOCK WASHERS

TRADE MARK REGISTERED

KANTLINK PATENTED (TANGLE-PROOF)

GUARANTEED FOR QUALITY AND WORKMANSHIP

NON-LINK POSITIVE PATENTED (TANGLE-PROOF)

MADE IN

CARBON SPRING STEEL
SPECIAL ALLOY STEEL
STAINLESS STEEL
PHOSPHOR BRONZE—"EVERDUR"
"OLYMPIC BRONZE" "DURONZE"
IN RUST PROOFED AND PLATED FINISHES

POSITIVE TYPE (Type "D")

RIB TYPE (Type "C")

PROMPT SHIPMENTS FROM FACTORY STOCK
No. 0 SCREW SIZE TO 5 1/2" BOLT SIZE

WAREHOUSE STOCKS AT

85 Walker St.	564 W. Randolph St.	2921 E. Grand Blvd.	158 Eleventh St.	455 Colyton St.
NEW YORK, N.Y.	CHICAGO, ILL.	DETROIT, MICH.	SAN FRANCISCO, CAL.	LOS ANGELES, CAL.

AVAILABLE FOR PROMPT SHIPMENT FROM WAREHOUSE STOCKS
KANTLINK AND POSITIVE (TYPE "D"). IN CARBON STEEL. S.A.E. LIGHT STANDARD & HEAVY.
NO. 2 SCREW SIZE TO 1⅛" BOLT SIZE

DISTRICT SALES REPRESENTATIVES

BUFFALO, N. Y.
Frank J. Poorten, 116 Deerfield Ave.

CHATTANOOGA, TENN.
C. R. Eaves & Co., P. O. Box 348

CHICAGO, ILL.
Higgins & Linde, Inc., 564 West Randolph St.

DALLAS, TEXAS
A. U. Smith, 4204 Purdue St.

DETROIT, MICH.
Miles L. Higgins, 2921 East Grand Blvd.

INDIANAPOLIS, IND.
Walter F. Greene, 3536 No. Meridian St.

LOS ANGELES, CAL.
Maydwell & Hartzell, Inc., 455 Colyton St.

NEW YORK, N. Y.
Peterson Bros. Corp., 85 Walker St.

SAN FRANCISCO, CAL.
Maydwell & Hartzell, Inc., 158 Eleventh St.

SYRACUSE, N. Y.
Cal. A. Lawton, 501 Roberts Ave.

TORONTO, ONT., CANADA
J. A. M. Taylor, 76 Nelson St.

KANTLINK

NON-LINK POSITIVE

"POSITIVE" (Type "D")

RIB TYPE ("C")

THE POSITIVE LOCK WASHER CO.

AVENUE "A" MILLER AND VANDERPOOL STREETS

NEWARK NEW JERSEY

LOCK WASHERS — FOR OVER FORTY-FIVE YEARS

SPRING LOCK WASHERS—POSITIVE—(TYPE D)

(Carbon Steel) [Antilink Positive, Nonlink Positive]

Screw or Bolt Size	Section Size	List per 1,000	Weight per 1,000	S. A. E. Classification	DISCOUNTS								
					10	20	30	33⅓	40	50	60	70	75
No. 2	.022 x .022	4.10	½ oz.	Light	3.69	3.28	2.87	2.73	2.46	2.05	1.64	1.23	1.03
	1/32 x .022	4.10	1 oz.	Standard	3.69	3.28	2.87	2.73	2.46	2.05	1.64	1.23	1.03
	1/32 x 1/32	3.80	2 oz.	Heavy	3.42	3.04	2.66	2.53	2.28	1.90	1.52	1.14	.95
No. 4	1/32 x .022	3.40	1⅜ oz.	Light	3.06	2.72	2.38	2.26	2.04	1.70	1.36	1.02	.85
	1/32 x 1/32	3.40	2 oz.	Standard	3.06	2.72	2.38	2.26	2.04	1.70	1.36	1.02	.85
	3/64 x 1/32	3.40	3½ oz.	Heavy	3.06	2.72	2.38	2.26	2.04	1.70	1.36	1.02	.85
No. 6	1/32 x 1/32	3.40	2½ oz.	Light	3.06	2.72	2.38	2.26	2.04	1.70	1.36	1.02	.85
	3/64 x 1/32	3.10	4 oz.	Standard	2.79	2.48	2.17	2.06	1.86	1.55	1.24	.93	.78
	3/64 x 3/64	3.00	5 oz.	Heavy	2.70	2.40	2.10	2.00	1.80	1.50	1.20	.90	.75
No. 8	3/64 x 1/32	3.00	5 oz.	Light	2.70	2.40	2.10	2.00	1.80	1.50	1.20	.90	.75
	3/64 x 3/64	3.00	7 oz.	Standard	2.70	2.40	2.10	2.00	1.80	1.50	1.20	.90	.75
	1/16 x 3/64	3.00	10 oz.	Heavy	2.70	2.40	2.10	2.00	1.80	1.50	1.20	.90	.75
No. 10 & 3/16 in.	3/64 x 3/64	2.80	8 oz.	Light	2.52	2.24	1.96	1.87	1.68	1.40	1.12	.84	.56
	1/64 x 3/64	2.80	11 oz.	Standard	2.52	2.24	1.96	1.87	1.68	1.40	1.12	.84	.56
	1/16 x 1/16	2.80	15 oz.	Heavy	2.52	2.24	1.96	1.87	1.68	1.40	1.12	.84	.56
No. 12	1/16 x 3/64	3.40	12¾ oz.	Light	3.06	2.72	2.38	2.26	2.04	1.70	1.36	1.02	.85
	1/16 x 1/16	3.50	16 oz.	Standard	3.15	2.80	2.45	2.33	2.10	1.75	1.40	1.05	.88
	5/64 x 1/16	3.50	20 oz.	Heavy	3.15	2.80	2.45	2.33	2.10	1.75	1.40	1.05	.88
1/4 in.	3/32 x 3/64	3.40	1⅜ lbs.	Light	3.06	2.72	2.38	2.26	2.04	1.70	1.36	1.02	.85
	3/32 x 1/16	3.60	1⅞ lbs.	Standard	3.24	2.88	2.52	2.40	2.16	1.80	1.44	1.08	.90
	3/32 x 5/64	3.80	2¼ lbs.	Heavy	3.42	3.04	2.66	2.53	2.28	1.90	1.52	1.14	.95
5/16 in.	1/8 x 3/64	4.20	2 5/16 lbs.	Light	3.78	3.36	2.94	2.80	2.52	2.10	1.68	1.26	1.05
	1/8 x 1/16	4.40	3 1/16 lbs.	Standard	3.96	3.52	3.08	2.93	2.64	2.20	1.76	1.32	1.10
	1/8 x 3/32	5.20	4 7/16 lbs.	Heavy	4.68	4.16	3.64	3.47	3.12	2.60	2.08	1.56	1.30
3/8 in.	1/8 x 1/16	5.00	4 lbs.	Light	4.50	4.00	3.50	3.33	3.00	2.50	2.00	1.50	1.25
	1/8 x 3/32	5.40	5 lbs.	Standard	4.86	4.32	3.78	3.60	3.24	2.70	2.16	1.62	1.35
	1/8 x 1/8	6.60	7½ lbs.	Heavy	5.94	5.28	4.62	4.40	3.96	3.30	2.64	1.98	1.65
7/16 in.	5/32 x 1/16	6.80	5 lbs.	Light	6.12	5.44	4.76	4.53	4.08	3.40	2.72	2.04	1.70
	5/32 x 1/8	8.40	10¼ lbs.	Standard	7.56	6.72	5.88	5.60	5.04	4.20	3.36	2.52	2.10
	5/32 x 5/32	11.40	12 13/16 lbs.	Heavy	10.26	9.12	7.98	7.60	6.84	5.70	4.56	3.42	2.85
1/2 in.	11/64 x 1/16	8.00	6⅛ lbs.	Light	7.20	6.40	5.60	5.33	4.80	4.00	3.20	2.40	2.00
	11/64 x 1/8	10.00	13 1/16 lbs.	Standard	9.00	8.00	7.00	6.67	6.00	5.00	4.00	3.00	2.50
	11/64 x 11/64	15.00	17¼ lbs.	Heavy	13.50	12.00	10.50	10.00	9.00	7.50	6.00	4.50	3.75
9/16 in.	3/16 x 3/32	11.00	11½ lbs.	Light	9.90	8.80	7.70	7.33	6.60	5.50	4.40	3.30	2.75
	3/16 x 1/8	12.80	15 5/8 lbs.	Standard	11.52	10.24	8.96	8.53	7.68	6.40	5.12	3.84	3.20
	3/16 x 3/16	18.60	23 11/16 lbs.	Heavy	16.74	14.88	13.02	12.40	11.16	9.30	7.44	5.58	4.65
5/8 in.	13/64 x 3/32	14.80	14 5/16 lbs.	Light	13.32	11.84	10.36	9.86	8.88	7.40	5.92	4.44	3.70
	13/64 x 5/32	19.20	23¾ lbs.	Standard	17.28	15.36	13.44	12.80	11.52	9.60	7.68	5.76	4.80
	13/64 x 13/64	24.40	31 5/16 lbs.	Heavy	21.96	19.52	17.08	16.25	14.64	12.20	9.76	7.32	6.10
11/16 in.	7/32 x 1/8	21.20	21 15/16 lbs.	Light	19.08	16.96	14.84	14.12	12.72	10.60	8.48	6.36	5.30
	11/16 x 3/16	27.00	35 lbs.	Standard	24.30	21.60	18.90	18.00	16.20	13.50	10.80	8.10	6.75
	7/32 x 7/32	32.00	39⅞ lbs.	Heavy	28.80	25.60	22.40	21.33	19.20	16.00	12.80	9.60	8.00
3/4 in.	1/4 x 1/8	24.80	27⅞ lbs.	Light	22.32	19.84	17.36	16.53	14.88	12.40	9.92	7.44	6.20
	1/4 x 3/16	30.80	43 lbs.	Standard	27.72	24.64	21.56	20.53	18.48	15.40	12.32	9.24	7.70
	1/4 x 1/4	40.00	55½ lbs.	Heavy	36.00	32.00	28.00	26.66	24.00	20.00	16.00	12.00	10.00
7/8 in.	17/64 x 5/32	40.80	42 lbs.	Light	36.72	32.64	28.56	27.20	24.48	20.40	16.32	12.24	10.20
	17/64 x 3/16	44.00	51½ lbs.	Standard	39.60	35.20	30.80	29.33	26.40	22.00	17.60	13.20	11.00
	17/64 x 17/64	56.80	73 lbs.	Heavy	51.12	45.44	39.76	37.86	34.08	28.40	22.72	17.04	14.20
1 in.	5/16 x 3/16	68.00	64⅞ lbs.	Light	61.20	54.40	47.60	45.33	40.80	34.00	27.20	20.40	17.00
	5/16 x 1/4	72.00	90 13/16 lbs.	Standard	64.80	57.60	50.40	48.00	43.20	36.00	28.80	21.60	18.00
	5/16 x 5/16	84.00	113⅞ lbs.	Heavy	75.60	67.20	58.80	56.00	50.40	42.00	33.60	25.20	21.00
1 1/8 in.	3/8 x 3/16	78.00	96 lbs.	Light	70.20	62.40	54.60	52.00	46.80	39.00	31.20	23.40	19.50
	1⅛ x ¼	100.00	125 lbs.	Standard	90.00	80.00	70.00	66.66	60.00	50.00	40.00	30.00	25.00
	3/8 x 3/8	128.00	191 lbs.	Heavy	115.20	102.40	89.60	85.32	76.80	64.00	51.20	38.40	32.00
1 1/4 in.	7/16 x 3/16	104.00	120 lbs.	Light	93.60	83.20	72.80	69.33	62.40	52.00	41.60	31.20	26.00
	7/16 x 1/4	134.00	161½ lbs.	Standard	120.60	107.20	93.80	89.32	80.40	67.00	53.60	40.20	33.50
	7/16 x 5/16	148.00	197⅜ lbs.	Heavy	133.20	118.40	103.60	98.66	88.80	74.00	59.20	44.40	37.00
1 3/8 in.	7/16 x 1/4	142.00	175 lbs.	Light	127.80	113.60	99.40	94.66	85.20	71.00	56.80	42.60	35.50
	7/16 x 5/16	156.00	214¼ lbs.	Standard	140.40	124.80	109.20	104.00	93.60	78.00	62.40	46.80	39.00
	7/16 x 3/8	164.00	241⅞ lbs.	Heavy	147.60	131.20	114.80	109.32	98.40	82.00	65.60	49.20	41.00
1 1/2 in.	½ x ¼	180.00	214½ lbs.	Light	162.00	144.00	126.00	120.00	108.00	90.00	72.00	54.00	45.00
	½ x 5/16	170.00	282 lbs.	Standard	153.00	136.00	119.00	113.33	102.00	85.00	68.00	51.00	42.50
	½ x 3/8	224.00	338⅞ lbs.	Heavy	211.60	189.20	166.80	149.42	144.40	122.00	99.60	77.20	66.00

IMPORTANT!—All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

Brass ESCUTCHEON PINS
HASSALL Brass Escutcheon Pins are packed in strong, attractive boxes which withstand the usage given them on your shelves and present a distinctive appearance which invites sales.
Put HASSALL Brass Escutcheon Pins on display and watch sales and profits grow. They have a variety of uses which makes their sale repeat frequently. Don't lose business on other articles because your competitor carries escutcheon pins. Serve your customers with HASSALL quality pins.
They are inexpensive to carry yet yield high profit. These pins may be purchased in the boxes illustrated in quantities of one pound or more of a size.
SEND FOR ILLUSTRATED CATALOG
"Nails in any Metal"
JOHN HASSALL INC.
402 OAKLAND ST. BROOKLYN, NEW YORK

BRASS ESCUTCHEON PINS

List price per pound—Packed one pound in a paper box.

Length Inches	3/16	¼	⅜	½	⅝	¾	⅞	1	1¼	1½	1¾	2
Wire Gauge No. 10			$0.85	$0.80	$0.78	$0.76	$0.75	$0.74	$0.72	$0.71	$0.70	$0.69
11			.95	.87	.84	.82	.80	.78	.76	.75	.74	.73
12		$1.15	.98	.93	.90	.87	.85	.83	.79	.77	.76	.75
13		1.20	1.03	.98	.93	.90	.87	.84	.80	.78		
14	$1.50	1.25	1.05	1.00	.96	.92	.88	.85	.81	.80		
15	1.60	1.35	1.15	1.07	1.00	.95	.92	.90	.86	.84		
16	1.75	1.45	1.20	1.10	1.03	.99	.96	.94	.90	.88		
17	2.00	1.60	1.40	1.25	1.17	1.10	1.04	1.00	.96	.94		
18	2.50	1.90	1.50	1.35	1.27	1.20	1.15	1.10				
19	2.75	2.15	1.75	1.60	1.45	1.35	1.30	1.25				
20	3.00	2.35	2.10	1.95	1.80	1.65						
21	3.25	2.75	2.50	2.30								
22	3.50	3.15	2.85	2.60								
24	4.00	3.50	3.10	2.85								

PLATING, (brass, copper, and nickel) lots of 100 pounds of an item 6 cents net per pound. Less than 100 pounds add 20 cents to list price before deducting discounts. Minimum charge for plating $2.00 net per item.

COMMON NUTS—SQUARE & HEXAGON

Cold Punched or Hot Pressed—Tapped & Blank

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 7/16-inch (bolt size) hexagon nuts—find the proper size and follow it along until the 40 per cent column is reached where the correct net price of .84 will be found. Other discounts on varying sizes are determined in the same manner. **List prices are per 100** as adopted July 1, 1927.

SQUARE—TAPPED

Bolt Size Inches	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3/16	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
¼	.33	.30	.26	.24	.23	.22	.20	.17	.13	.10	.08
5/16	.51	.46	.41	.38	.36	.34	.31	.26	.20	.15	.13
⅜	.67	.60	.54	.50	.47	.45	.40	.34	.27	.20	.17
7/16	1.05	.95	.84	.79	.74	.70	.63	.53	.42	.32	.26
½	1.45	1.31	1.16	1.12	1.02	.97	.87	.73	.58	.44	.36
9/16	2.30	2.07	1.84	1.73	1.61	1.54	1.38	1.15	.92	.69	.58
⅝	2.85	2.57	2.28	2.14	2.00	1.90	1.71	1.43	1.14	.86	.71
¾	3.95	3.56	3.16	2.97	2.77	2.64	2.37	1.98	1.58	1.19	.99
⅞	6.90	6.21	5.52	5.18	4.83	4.60	4.14	3.45	2.76	2.07	1.73
1	9.80	8.82	7.84	7.35	6.86	6.54	5.88	4.90	3.92	2.94	2.45

HEXAGON—TAPPED

Bolt Size Inches	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3/16	.36	.32	.29	.27	.25	.24	.22	.18	.14	.11	.09
¼	.40	.36	.32	.30	.28	.27	.24	.20	.16	.12	.10
5/16	.70	.63	.56	.53	.49	.47	.42	.35	.28	.21	.18
⅜	1.00	.90	.80	.75	.70	.67	.60	.50	.40	.30	.25
7/16	1.40	1.26	1.12	1.05	.98	.93	.84	.70	.56	.42	.35
½	1.90	1.71	1.52	1.43	1.33	1.27	1.14	.95	.76	.57	.48
9/16	2.50	2.25	2.00	1.88	1.75	1.67	1.50	1.25	1.00	.75	.63
⅝	3.30	2.97	2.64	2.48	2.31	2.20	1.98	1.65	1.32	.99	.83
¾	4.50	4.05	3.60	3.38	3.15	3.00	2.70	2.25	1.80	1.35	1.13
⅞	7.25	6.53	5.80	5.44	5.08	4.83	4.35	3.63	2.90	2.18	1.81
1	10.40	9.36	8.32	7.80	7.28	6.92	6.24	5.20	4.16	3.12	2.60

SQUARE—BLANK

Bolt Size Inches	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3/16	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
¼	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
5/16	.45	.41	.36	.34	.32	.30	.27	.23	.18	.14	.11
⅜	.60	.54	.48	.45	.42	.40	.36	.30	.24	.18	.15
7/16	.90	.81	.72	.68	.63	.60	.54	.45	.36	.27	.23
½	1.25	1.13	1.00	.94	.88	.84	.75	.63	.50	.38	.31
9/16	2.05	1.85	1.64	1.54	1.44	1.37	1.23	1.03	.82	.62	.51
⅝	2.60	2.34	2.08	1.95	1.82	1.74	1.56	1.30	1.04	.78	.65
¾	3.60	3.24	2.88	2.70	2.52	2.40	2.16	1.80	1.44	1.08	.90
⅞	6.15	5.54	4.92	4.62	4.31	4.10	3.69	3.08	2.46	1.85	1.54
1	8.95	8.06	7.16	6.72	6.27	5.97	5.37	4.48	3.58	2.69	2.24

HEXAGON—BLANK

Bolt Size Inches	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3/16	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
¼	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
5/16	.64	.58	.51	.48	.45	.43	.38	.32	.26	.19	.16
⅜	.91	.82	.73	.68	.64	.61	.55	.46	.36	.27	.23
7/16	1.25	1.13	1.00	.94	.88	.83	.75	.63	.50	.38	.31
½	1.70	1.53	1.36	1.28	1.19	1.13	1.02	.85	.68	.51	.43
9/16	2.25	2.03	1.80	1.69	1.58	1.50	1.35	1.13	.90	.68	.56
⅝	3.05	2.75	2.44	2.29	2.14	2.03	1.83	1.53	1.22	.92	.76
¾	4.15	3.74	3.32	3.11	2.91	2.77	2.49	2.08	1.66	1.25	1.04
⅞	6.50	5.85	5.20	4.88	4.55	4.33	3.90	3.25	2.60	1.95	1.63
1	9.55	8.60	7.64	7.16	6.69	6.37	5.73	4.78	3.82	2.87	2.39

LAG SCREWS — With Square Heads and Gimlet Points

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The

Lgth.	List	10	20	25	30	33⅓	40	50	60	70	75
1	8.95	8.06	7.16	6.72	6.27	5.97	5.37	4.48	3.58	2.69	2.24

Lgth.	List	10	20	25	30	33⅓	40	50	60	70	75
1	9.55	8.60	7.64	7.16	6.69	6.37	5.73	4.78	3.82	2.87	2.39

LAG SCREWS — With Square Heads and Gimlet Points

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per 100 as adopted April 1, 1927

1/4 & 5/16 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	2.35	2.12	1.88	1.77	1.65	1.57	1.41	1.18	.94	.71	.59
1½	2.15	1.94	1.72	1.62	1.51	1.44	1.29	1.08	.86	.65	.54
2	2.35	2.12	1.88	1.77	1.65	1.57	1.41	1.18	.94	.71	.59
2½	2.55	2.30	2.04	1.92	1.79	1.70	1.53	1.28	1.02	.77	.64
3	2.80	2.52	2.24	2.10	1.96	1.87	1.68	1.40	1.12	.84	.70
3½	3.05	2.75	2.44	2.29	2.14	2.04	1.83	1.53	1.22	.92	.76
4	3.30	2.97	2.64	2.48	2.31	2.20	1.98	1.65	1.32	.99	.83
4½	3.55	3.20	2.84	2.67	2.49	2.37	2.13	1.78	1.42	1.07	.89
5	3.80	3.42	3.04	2.85	2.66	2.54	2.28	1.90	1.52	1.14	.95
5½	4.05	3.65	3.24	3.04	2.84	2.70	2.43	2.03	1.62	1.22	1.01
6	4.35	3.92	3.48	3.27	3.05	2.90	2.61	2.18	1.74	1.31	1.09
6½	4.65	4.19	3.72	3.49	3.26	3.10	2.79	2.33	1.86	1.40	1.16
7	4.95	4.46	3.96	3.72	3.47	3.30	2.97	2.48	1.98	1.49	1.24
7½	5.25	4.73	4.20	3.94	3.68	3.50	3.15	2.63	2.10	1.58	1.31
8	5.55	5.00	4.44	4.17	3.89	3.70	3.33	2.78	2.22	1.67	1.39
9	6.15	5.54	4.92	4.62	4.31	4.10	3.69	3.08	2.46	1.85	1.54
10	6.75	6.08	5.40	5.07	4.73	4.50	4.05	3.38	2.70	2.03	1.69

7/16 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	4.25	3.83	3.40	3.19	2.98	2.84	2.55	2.13	1.70	1.28	1.06
1½	3.90	3.51	3.12	2.93	2.73	2.60	2.34	1.95	1.56	1.17	.98
2	3.55	3.20	2.84	2.67	2.49	2.37	2.13	1.78	1.42	1.07	.89
2½	3.90	3.51	3.12	2.93	2.73	2.60	2.34	1.95	1.56	1.17	.98
3	4.30	3.87	3.44	3.23	3.01	2.87	2.58	2.15	1.72	1.29	1.08
3½	4.70	4.23	3.76	3.53	3.29	3.14	2.82	2.35	1.88	1.41	1.18
4	5.10	4.59	4.08	3.83	3.57	3.40	3.06	2.55	2.04	1.53	1.28
4½	5.50	4.95	4.40	4.13	3.85	3.67	3.30	2.75	2.20	1.65	1.38
5	5.90	5.31	4.72	4.43	4.13	3.94	3.54	2.95	2.36	1.77	1.48
5½	6.30	5.67	5.04	4.73	4.41	4.20	3.78	3.15	2.52	1.89	1.58
6	6.70	6.03	5.36	5.03	4.69	4.47	4.02	3.35	2.68	2.01	1.68
6½	7.10	6.39	5.68	5.33	4.97	4.74	4.26	3.55	2.84	2.13	1.78
7	7.50	6.75	6.00	5.63	5.25	5.00	4.50	3.75	3.00	2.25	1.88
7½	7.90	7.11	6.32	5.93	5.53	5.27	4.74	3.95	3.16	2.37	1.98
8	8.30	7.47	6.64	6.23	5.81	5.54	4.98	4.15	3.32	2.49	2.08
9	9.10	8.19	7.28	6.83	6.37	6.07	5.46	4.55	3.64	2.73	2.28
10	9.90	8.91	7.92	7.43	6.93	6.60	5.94	4.95	3.96	2.97	2.48
11	10.80	9.72	8.64	8.10	7.56	7.20	6.48	5.40	4.32	3.24	2.70
12	11.70	10.53	9.36	8.78	8.19	7.80	7.02	5.85	4.68	3.51	2.93

3/8 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	2.85	2.57	2.28	2.14	2.00	1.90	1.71	1.43	1.14	.86	.71
1½	2.60	2.34	2.08	1.95	1.82	1.74	1.56	1.30	1.04	.78	.65
2	2.85	2.57	2.28	2.14	2.00	1.90	1.71	1.43	1.14	.86	.71
2½	3.10	2.79	2.48	2.33	2.17	2.07	1.86	1.55	1.24	.93	.78
3	3.40	3.06	2.72	2.55	2.38	2.27	2.04	1.70	1.36	1.02	.85
3½	3.70	3.33	2.96	2.78	2.59	2.37	2.22	1.85	1.48	1.11	.93
4	4.00	3.60	3.20	3.00	2.80	2.67	2.40	2.00	1.60	1.20	1.00
4½	4.30	3.87	3.44	3.23	3.01	2.87	2.58	2.15	1.72	1.29	1.08
5	4.65	4.19	3.72	3.49	3.26	3.10	2.79	2.33	1.86	1.40	1.16
5½	5.00	4.50	4.00	3.75	3.50	3.34	3.00	2.50	2.00	1.50	1.25
6	5.35	4.82	4.28	4.02	3.75	3.57	3.21	2.68	2.14	1.61	1.34
6½	5.70	5.13	4.56	4.28	3.99	3.80	3.42	2.85	2.28	1.71	1.43
7	6.05	5.45	4.84	4.54	4.24	4.04	3.63	3.03	2.42	1.82	1.51
7½	6.40	5.76	5.12	4.80	4.48	4.27	3.84	3.20	2.56	1.92	1.60
8	6.75	6.08	5.40	5.07	4.73	4.50	4.05	3.38	2.70	2.03	1.69
9	7.45	6.71	5.96	5.59	5.22	4.97	4.47	3.73	2.98	2.24	1.86
10	8.15	7.34	6.52	6.12	5.71	5.44	4.89	4.08	3.26	2.45	2.04
11	8.90	8.01	7.12	6.68	6.23	5.94	5.34	4.45	3.56	2.67	2.23
12	9.65	8.69	7.72	7.24	6.76	6.44	5.79	4.83	3.86	2.90	2.41

1/2 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	5.25	4.73	4.20	3.94	3.68	3.50	3.15	2.63	2.10	1.58	1.31
1½	4.85	4.37	3.88	3.64	3.40	3.24	2.91	2.43	1.94	1.46	1.21
2	4.45	4.01	3.56	3.34	3.12	2.97	2.67	2.23	1.78	1.34	1.11
2½	4.85	4.37	3.88	3.64	3.40	3.24	2.91	2.43	1.94	1.46	1.21
3	5.30	4.77	4.24	3.98	3.71	3.54	3.18	2.65	2.12	1.59	1.33
3½	5.75	5.18	4.60	4.32	4.03	3.84	3.45	2.88	2.30	1.73	1.44
4	6.20	5.58	4.96	4.65	4.34	4.14	3.72	3.10	2.48	1.86	1.55
4½	6.65	5.99	5.32	4.99	4.66	4.44	3.99	3.33	2.66	2.00	1.66
5	7.10	6.39	5.68	5.33	4.97	4.74	4.26	3.55	2.84	2.13	1.78
5½	7.55	6.80	6.04	5.67	5.29	5.04	4.53	3.78	3.02	2.27	1.89
6	8.00	7.20	6.40	6.00	5.60	5.34	4.80	4.00	3.20	2.40	2.00
6½	8.45	7.61	6.76	6.34	5.92	5.64	5.07	4.23	3.38	2.54	2.11
7	8.90	8.01	7.12	6.68	6.23	5.94	5.34	4.45	3.56	2.67	2.23
7½	9.35	8.42	7.48	7.02	6.55	6.24	5.61	4.68	3.74	2.81	2.34
8	9.80	8.82	7.84	7.35	6.86	6.54	5.88	4.90	3.92	2.94	2.45
9	10.70	9.63	8.56	8.03	7.49	7.14	6.42	5.35	4.28	3.21	2.68
10	11.60	10.44	9.28	8.70	8.12	7.74	6.96	5.80	4.64	3.48	2.90
11	12.60	11.34	10.08	9.45	8.82	8.40	7.56	6.30	5.04	3.78	3.15
12	13.60	12.24	10.88	10.20	9.52	9.07	8.16	6.80	5.44	4.08	3.40

LAG SCREWS

With Square Heads and Gimlet Points

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 60 per cent is desired on 3/4-inch diameter lag screws 6 inches in length—find the proper length line and follow it along until the 60 per cent column is reached where the correct net price of $6.92 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted April 1, 1927.

5/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1½	7.95	7.16	6.36	5.97	5.57	5.30	4.77	3.98	3.18	2.39	1.99
2	7.40	6.66	5.92	5.55	5.18	4.94	4.44	3.70	2.96	2.22	1.85
2½	6.85	6.17	5.48	5.14	4.80	4.57	4.11	3.43	2.74	2.06	1.71
3	7.50	6.75	6.00	5.63	5.25	5.00	4.50	3.75	3.00	2.25	1.88
3½	8.15	7.34	6.52	6.12	5.71	5.44	4.89	4.08	3.26	2.45	2.04
4	8.80	7.92	7.04	6.60	6.16	5.87	5.28	4.40	3.52	2.64	2.20
4½	9.45	8.51	7.56	7.09	6.62	6.30	5.67	4.73	3.78	2.84	2.36
5	10.10	9.09	8.08	7.58	7.07	6.74	6.06	5.05	4.04	3.03	2.53
5½	10.75	9.68	8.60	8.07	7.53	7.17	6.45	5.38	4.30	3.23	2.69
6	11.40	10.26	9.12	8.55	7.98	7.60	6.84	5.70	4.56	3.42	2.85
6½	12.05	10.85	9.64	9.04	8.44	8.04	7.23	6.03	4.82	3.62	3.01
7	12.70	11.43	10.16	9.53	8.89	8.47	7.62	6.35	5.08	3.81	3.18
7½	13.35	12.02	10.68	10.02	9.35	8.90	8.01	6.68	5.34	4.01	3.34
8	14.00	12.60	11.20	10.50	9.80	9.34	8.40	7.00	5.60	4.20	3.50
9	15.20	13.68	12.16	11.40	10.64	10.14	9.12	7.60	6.08	4.56	3.80
10	16.40	14.76	13.12	12.30	11.48	10.94	9.84	8.20	6.56	4.92	4.10
11	17.70	15.93	14.16	13.28	12.39	11.80	10.62	8.85	7.08	5.31	4.43
12	19.00	17.10	15.20	14.25	13.30	12.67	11.40	9.50	7.60	5.70	4.75
13	20.30	18.27	16.24	15.23	14.21	13.54	12.18	10.15	8.12	6.09	5.08
14	21.60	19.44	17.28	16.20	15.12	14.40	12.96	10.80	8.64	6.48	5.40
15	22.90	20.61	18.32	17.18	16.03	15.27	13.74	11.45	9.16	6.87	5.73
16	24.20	21.78	19.36	18.15	16.94	16.14	14.52	12.10	9.68	7.26	6.05

3/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1½	12.50	11.25	10.00	9.38	8.75	6.34	7.50	6.25	5.00	3.75	3.13
2	11.75	10.58	9.40	8.82	8.23	7.84	7.05	5.88	4.70	3.53	2.94
2½	11.00	9.90	8.80	8.25	7.70	7.34	6.60	5.50	4.40	3.30	2.75
3	11.90	10.71	9.52	8.93	8.33	7.94	7.14	5.95	4.76	3.57	2.98
3½	12.80	11.52	10.24	9.60	8.96	8.54	7.68	6.40	5.12	3.84	3.20
4	13.70	12.33	10.96	10.28	9.59	9.14	8.22	6.85	5.48	4.11	3.43
4½	14.60	13.14	11.68	10.95	10.22	9.74	8.76	7.30	5.84	4.38	3.65
5	15.50	13.95	12.40	11.63	10.85	10.34	9.30	7.75	6.20	4.65	3.88
5½	16.40	14.76	13.12	12.30	11.48	10.94	9.84	8.20	6.56	4.92	4.10
6	17.30	15.57	13.84	12.98	12.11	11.54	10.38	8.65	6.92	5.19	4.33
6½	18.20	16.38	14.56	13.65	12.74	12.14	10.92	9.10	7.28	5.46	4.55
7	19.10	17.19	15.28	14.33	13.37	12.74	11.46	9.55	7.64	5.73	4.78
7½	20.00	18.00	16.00	15.00	14.00	13.34	12.00	10.00	8.00	6.00	5.00
8	20.90	18.81	16.72	15.68	14.63	13.94	12.54	10.45	8.36	6.27	5.23
9	22.65	20.39	18.12	16.99	15.86	15.10	13.59	11.33	9.06	6.80	5.66
10	24.40	21.96	19.52	18.30	17.08	16.27	14.64	12.20	9.76	7.32	6.10
11	26.25	23.63	21.00	19.69	18.38	17.50	15.75	13.13	10.50	7.88	6.56
12	28.10	25.29	22.48	21.08	19.67	18.74	16.86	14.05	11.24	8.43	7.03
13	29.95	26.96	23.96	22.47	20.97	19.97	17.97	14.98	11.98	8.99	7.49
14	31.85	28.67	25.48	23.89	22.30	21.24	19.11	15.93	12.74	9.56	7.96
15	33.75	30.38	27.00	25.32	23.63	22.50	20.25	16.88	13.50	10.13	8.44
16	35.65	32.09	28.52	26.74	24.96	23.77	21.39	17.83	14.26	10.70	8.91

National PRODUCTS

NUTS AND BOLTS	SPOKES AND NIPPLES
MACHINE SCREWS	STOVE BOLTS
CAP AND SET SCREWS	WING NUTS
WOOD SCREWS	PIPE PLUGS
COTTER PINS	RIVETS, TACKS

You will appreciate the definite advantage to you in having one dependable source of supply for all these products. Jobber and dealer alike find this full line profitable and attractive. Let us tell you more about it.

NAT SAYS...

I stand for products
That are fine--
For hardware men
The A1 line.

THE NATIONAL SCREW & MANUFACTURING CO.
CLEVELAND, OHIO

LAG SCREWS

With Square Heads and Gimlet Points

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per 100 as adopted April 1, 1927

7/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
2	18.60	16.74	14.88	13.95	13.02	12.40	11.16	9.30	7.44	5.58	4.65
2½	17.60	15.84	14.08	13.20	12.32	11.74	10.56	8.80	7.04	5.28	4.40
3	16.80	15.12	13.44	12.60	11.76	11.20	10.08	8.40	6.72	5.04	4.20
3½	18.00	16.20	14.40	13.50	12.60	12.00	10.80	9.00	7.20	5.40	4.50
4	19.20	17.28	15.36	14.40	13.44	12.60	11.52	9.60	7.68	5.76	4.80
4½	20.40	18.36	16.32	15.30	14.28	13.60	12.24	10.20	8.16	6.12	5.10
5	21.60	19.44	17.28	16.20	15.12	14.40	12.96	10.80	8.64	6.48	5.40
5½	22.80	20.52	18.24	17.10	15.96	15.20	13.68	11.40	9.12	6.84	5.70
6	24.00	21.60	19.20	18.00	16.80	16.00	14.40	12.00	9.60	7.20	6.00
6½	25.20	22.68	20.16	18.90	17.64	16.80	15.12	12.60	10.08	7.56	6.30
7	26.40	23.76	21.12	19.80	18.48	17.60	15.84	13.20	10.56	7.92	6.60
7½	27.60	24.84	22.08	20.70	19.32	18.74	16.56	13.80	11.04	8.28	6.90
8	28.80	25.92	23.04	21.60	20.16	19.20	17.28	14.40	11.52	8.64	7.20
9	31.00	27.90	24.80	23.25	21.70	20.67	18.60	15.50	12.40	9.30	7.75
10	33.20	29.88	26.56	24.90	23.24	22.14	19.92	16.60	13.28	9.96	8.30
11	35.50	31.95	28.40	26.63	24.85	23.67	21.30	17.75	14.20	10.65	8.88
12	37.90	34.11	30.32	28.43	26.53	25.27	22.74	18.95	15.16	11.37	9.48
13	40.50	36.45	32.40	30.38	28.35	27.00	24.30	20.25	16.20	12.15	10.13
14	43.10	38.79	34.48	32.33	30.17	28.74	25.86	21.55	17.24	12.93	10.78
15	45.75	41.18	36.60	34.32	32.03	30.50	27.45	22.88	18.30	13.73	11.44
16	48.40	43.56	38.72	36.30	33.88	32.27	29.04	24.20	19.36	14.52	12.10

1 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
2	28.40	25.56	22.72	21.30	19.88	18.94	17.04	14.20	11.36	8.52	7.10
2½	27.10	24.39	21.68	20.33	18.97	18.07	16.26	13.55	10.84	8.13	6.78
3	26.05	23.45	20.84	19.54	18.24	17.37	15.63	13.03	10.42	7.82	6.51
3½	25.00	22.50	20.00	18.75	17.50	16.67	15.00	12.50	10.00	7.50	6.25
4	26.55	23.90	21.24	19.92	18.59	17.70	15.93	13.28	10.62	7.97	6.64
4½	28.10	25.29	22.48	21.08	19.67	18.74	16.86	14.05	11.24	8.43	7.03
5	29.65	26.69	23.72	22.24	20.76	19.77	17.79	14.83	11.86	8.90	7.41
5½	31.20	28.08	24.96	23.40	21.84	20.80	18.72	15.60	12.48	9.36	7.80
6	32.75	29.48	26.20	24.57	22.93	21.84	19.65	16.38	13.10	9.83	8.19
6½	34.30	30.87	27.44	25.73	24.01	22.87	20.58	17.15	13.72	10.29	8.58
7	35.85	32.27	28.68	26.89	25.10	23.90	21.51	17.93	14.34	10.76	8.96
7½	37.40	33.66	29.92	28.05	26.18	24.94	22.44	18.70	14.96	11.22	9.35
8	38.95	35.06	31.16	29.22	27.27	25.97	23.37	19.48	15.58	11.69	9.74
9	41.80	37.62	33.44	31.35	29.26	27.87	25.08	20.90	16.72	12.54	10.45
10	44.65	40.19	35.72	33.49	31.26	29.44	26.79	22.33	17.86	13.40	11.16
11	47.65	42.89	38.12	35.74	33.36	31.77	28.59	23.83	19.06	14.30	11.91
12	50.75	45.68	40.60	38.07	35.53	33.84	30.45	25.38	20.30	15.23	12.69
13	54.25	48.83	43.40	40.69	37.98	36.17	32.55	27.13	21.70	16.28	13.56
14	57.75	51.98	46.20	43.32	40.43	38.50	34.65	28.87	23.10	17.33	14.44
15	61.35	55.22	49.08	46.02	42.95	40.90	36.81	30.68	24.54	18.41	15.34
16	64.95	58.46	51.96	48.72	45.47	43.30	38.97	32.48	25.98	19.49	16.24

BRASS MACHINE SCREWS

Flat, Round, Oval and Fillister Head

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on No. 3 diameter brass machine screws, 3/4 inch in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of .35 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per gross** as adopted April 2, 1928.

NO. 2 DIAMETER

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅛	.28	.25	.22	.21	.19	.17	.14	.11	.10	.08	.07
3/16	.30	.27	.24	.23	.20	.18	.15	.12	.11	.09	.08
¼	.32	.29	.26	.24	.21	.19	.16	.13	.11	.10	.08
5/16	.34	.31	.27	.26	.23	.20	.17	.14	.12	.10	.09
⅜	.36	.32	.29	.27	.24	.22	.18	.14	.13	.11	.09
7/16	.38	.34	.30	.29	.25	.23	.19	.15	.13	.11	.10
½	.40	.36	.32	.30	.27	.24	.20	.16	.14	.12	.10
⅝	.44	.40	.35	.33	.29	.26	.22	.18	.15	.13	.11
¾	.50	.45	.40	.38	.33	.30	.25	.20	.18	.15	.13
⅞	.56	.50	.45	.42	.37	.34	.28	.22	.20	.17	.14

NO. 3 DIAMETER

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅛	.34	.31	.27	.26	.23	.20	.17	.14	.12	.10	.09
3/16	.36	.32	.29	.27	.24	.22	.18	.14	.13	.11	.09
¼	.38	.34	.30	.29	.25	.23	.19	.15	.13	.11	.10
5/16	.40	.36	.32	.30	.27	.24	.20	.16	.14	.12	.10
⅜	.42	.38	.34	.32	.28	.25	.21	.17	.15	.13	.11
7/16	.44	.40	.35	.33	.29	.26	.22	.18	.15	.13	.11
½	.46	.41	.37	.35	.31	.28	.23	.18	.16	.14	.12
⅝	.52	.47	.42	.39	.35	.31	.26	.21	.18	.16	.13
¾	.58	.52	.46	.44	.39	.35	.29	.23	.20	.17	.15
⅞	.66	.59	.53	.50	.44	.40	.33	.26	.23	.20	.17

NO. 4 DIAMETER

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅛	.40	.36	.32	.30	.27	.24	.20	.16	.14	.12	.10
3/16	.42	.38	.34	.32	.28	.25	.21	.17	.15	.13	.11
¼	.44	.40	.35	.33	.29	.26	.22	.18	.15	.13	.11
5/16	.46	.41	.37	.35	.31	.28	.23	.18	.16	.14	.12
⅜	.48	.43	.38	.36	.32	.29	.24	.19	.17	.14	.12
7/16	.50	.45	.40	.38	.33	.30	.25	.20	.18	.15	.13
½	.54	.49	.43	.41	.36	.32	.27	.22	.19	.16	.14
⅝	.62	.56	.50	.47	.41	.37	.31	.25	.22	.19	.16
¾	.68	.61	.54	.51	.45	.41	.34	.27	.24	.20	.17
⅞	.74	.67	.59	.56	.49	.44	.37	.30	.26	.22	.19
1	.82	.74	.66	.62	.55	.49	.41	.33	.29	.25	.21
1⅛	.90	.81	.72	.68	.60	.54	.45	.36	.32	.27	.23
1¼	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25
1½	1.25	1.13	1.00	.94	.83	.75	.63	.50	.44	.38	.31

NO. 6 DIAMETER

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅛	.52	.47	.42	.39	.35	.31	.26	.21	.18	.16	.13
3/16	.54	.49	.43	.41	.36	.32	.27	.22	.19	.16	.14
¼	.58	.52	.46	.44	.39	.35	.29	.23	.20	.17	.15
5/16	.62	.56	.50	.47	.41	.37	.31	.25	.22	.19	.16
⅜	.66	.59	.53	.50	.44	.40	.33	.26	.23	.20	.17
7/16	.70	.63	.56	.53	.47	.42	.35	.28	.25	.21	.18
½	.76	.68	.61	.57	.51	.46	.38	.30	.27	.23	.19
⅝	.92	.83	.74	.69	.61	.55	.46	.37	.32	.28	.23
¾	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25
⅞	1.10	.99	.88	.83	.73	.66	.55	.44	.39	.33	.28
1	1.20	1.08	.96	.90	.80	.72	.60	.48	.42	.36	.30
1⅛	1.30	1.17	1.04	.98	.87	.78	.65	.52	.46	.39	.33
1¼	1.45	1.31	1.16	1.09	.97	.87	.73	.58	.51	.44	.36
1½	1.65	1.49	1.32	1.24	1.10	.99	.83	.66	.58	.50	.41
1¾	1.95	1.76	1.56	1.46	1.30	1.17	.98	.78	.68	.59	.49
2	2.25	2.03	1.80	1.69	1.50	1.35	1.13	.90	.79	.68	.56

BRASS MACHINE SCREWS—Flat, Round, Oval and Fillister Head

NO. 8 DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
3/16	.70	.63	.56	.53	.47	.42	.35	.28	.25	.21	.18
¼	.76	.68	.61	.57	.51	.46	.38	.30	.27	.23	.19
5/16	.82	.74	.66	.62	.55	.49	.41	.33	.29	.25	.21
⅜	.88	.79	.70	.66	.59	.53	.44	.35	.31	.26	.22
7/16	.94	.85	.75	.71	.63	.56	.47	.38	.33	.28	.24
½	1.02	.92	.82	.77	.68	.61	.51	.41	.36	.31	.26
⅝	1.20	1.08	.96	.90	.80	.72	.60	.48	.42	.36	.30
¾	1.30	1.17	1.04	.98	.87	.78	.65	.52	.46	.39	.33
⅞	1.45	1.31	1.16	1.09	.97	.87	.73	.58	.51	.44	.36
1	1.60	1.44	1.28	1.20	1.07	.96	.80	.64	.56	.48	.40
1⅛	1.75	1.58	1.40	1.31	1.17	1.05	.88	.70	.61	.53	.44
1¼	1.90	1.71	1.52	1.43	1.27	1.14	.95	.76	.67	.57	.48
1½	2.15	1.94	1.72	1.61	1.44	1.29	1.08	.86	.75	.65	.54
1¾	2.45	2.21	1.96	1.84	1.63	1.47	1.23	.98	.86	.74	.61
2	2.75	2.48	2.20	2.06	1.83	1.65	1.38	1.10	.96	.83	.69
2¼	3.10	2.79	2.48	2.33	2.07	1.86	1.55	1.24	1.09	.93	.78

NO .10 DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
¼	1.05	.95	.84	.79	.70	.63	.53	.42	.37	.32	.26
5/16	1.15	1.04	.92	.86	.77	.69	.58	.46	.40	.35	.29
⅜	1.25	1.13	1.00	.94	.83	.75	.63	.50	.44	.38	.31
7/16	1.35	1.22	1.08	1.01	.90	.81	.68	.54	.47	.41	.34
½	1.45	1.31	1.16	1.09	.97	.87	.73	.58	.51	.44	.36
⅝	1.75	1.58	1.40	1.31	1.17	1.05	.88	.70	.61	.53	.44
¾	1.90	1.71	1.52	1.43	1.27	1.14	.95	.76	.67	.57	.48
⅞	2.05	1.85	1.64	1.54	1.37	1.23	1.03	.82	.72	.62	.51
1	2.20	1.98	1.76	1.65	1.47	1.32	1.10	.88	.77	.66	.55
1⅛	2.35	2.12	1.88	1.76	1.57	1.41	1.18	.94	.82	.71	.59
1¼	2.55	2.30	2.04	1.91	1.70	1.53	1.28	1.02	.89	.77	.64
1½	2.90	2.61	2.32	2.18	1.93	1.74	1.45	1.16	1.02	.87	.73
1¾	3.35	3.02	2.68	2.51	2.23	2.01	1.68	1.34	1.17	1.01	.84
2	3.80	3.42	3.04	2.85	2.53	2.28	1.90	1.52	1.33	1.14	.95
2¼	4.25	3.83	3.40	3.19	2.83	2.55	2.13	1.70	1.49	1.28	1.06
2½	4.75	4.28	3.80	3.56	3.17	2.85	2.38	1.90	1.66	1.43	1.19
2¾	5.25	4.73	4.20	3.94	3.50	3.15	2.63	2.10	1.84	1.58	1.31
3	5.75	5.18	4.60	4.31	3.83	3.45	2.88	2.30	2.01	1.73	1.44

NO. 12 DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
5/16	1.70	1.53	1.36	1.28	1.13	1.02	.85	.68	.60	.51	.43
⅜	1.80	1.62	1.44	1.35	1.20	1.08	.90	.72	.63	.54	.45
7/16	1.90	1.71	1.52	1.43	1.27	1.14	.95	.76	.67	.57	.48
½	2.00	1.80	1.60	1.50	1.33	1.20	1.00	.80	.70	.60	.50
⅝	2.20	1.98	1.76	1.65	1.47	1.32	1.10	.88	.77	.66	.55
¾	2.40	2.16	1.92	1.80	1.60	1.44	1.20	.96	.84	.72	.60
⅞	2.60	2.34	2.08	1.95	1.73	1.56	1.30	1.04	.91	.78	.65
1	2.80	2.52	2.24	2.10	1.87	1.68	1.40	1.12	.98	.84	.70
1⅛	3.00	2.70	2.40	2.25	2.00	1.80	1.50	1.20	1.05	.90	.75
1¼	3.25	2.93	2.60	2.44	2.17	1.95	1.63	1.30	1.14	.98	.81
1½	3.75	3.38	3.00	2.81	2.50	2.25	1.88	1.50	1.31	1.13	.94
1¾	4.25	3.83	3.40	3.19	2.83	2.55	2.13	1.70	1.49	1.28	1.06
2	4.75	4.28	3.80	3.56	3.17	2.85	2.38	1.90	1.66	1.43	1.19
2¼	5.25	4.73	4.20	3.94	3.50	3.15	2.63	2.10	1.84	1.58	1.31
2½	5.75	5.18	4.60	4.31	3.83	3.45	2.88	2.30	2.01	1.73	1.44
2¾	6.25	5.63	5.00	4.69	4.17	3.75	3.13	2.50	2.19	1.88	1.56
3	6.75	6.08	5.40	5.06	4.50	4.05	3.38	2.70	2.36	2.03	1.69

Steel Cotter Pins (Extended Prong)

Bulk Standard Packages

Manufacturers' Standard List (May 24, 1928) Per 1000 Pieces, in Standard Cartons

Diam.	1/16	3/32	⅛	5/32	3/16	¼	5/16	⅜	½	⅝
Length										
½	.35	.40	.55	....	....	....	....	....	....	....
¾	.45	.53	.75	1.20	1.70	....	....	....	....	....
1	.55	.65	.90	1.45	2.05	3.40	5.30	....	....	....
1¼	.65	.78	1.10	1.70	2.40	4.00	6.20	....	....	....
1½	.75	.90	1.25	1.95	2.75	4.60	7.10	10.50	....	....
1¾	.95	1.03	1.45	2.20	3.10	5.20	8.05	....	....	....
2	1.05	1.15	1.60	2.45	3.45	5.80	9.00	13.00	25.00	....
2¼	....	....	....	2.70	3.80	6.40	9.90	....	....	....
2½	....	1.55	2.00	2.95	4.15	7.00	10.80	15.50	30.00	....
3	....	....	2.50	3.45	5.00	7.80	11.70	18.00	35.00	57.50
3½	....	....	....	....	5.75	8.60	13.90	20.50	40.00	64.75
4	....	....	....	....	6.50	9.40	16.10	23.00	45.00	72.00
5	....	....	....	....	....	....	18.30	27.00	55.00	85.00
6	....	....	....	....	....	....	....	31.00	65.00	98.00

3	5.75	5.18	4.60	4.31	3.83	3.45	2.88	2.30	2.01	1.73	1.44

6	....	....	....	....	....	....	....	....	31.00	65.00	98.00

BRASS MACHINE SCREWS — Flat, Round, Oval and Fillister Head

1/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
5/16	2.30	2.07	1.84	1.73	1.53	1.38	1.15	.92	.81	.69	.58
⅜	2.40	2.16	1.92	1.80	1.60	1.44	1.20	.96	.84	.72	.60
7/16	2.50	2.25	2.00	1.88	1.67	1.50	1.25	1.00	.88	.75	.63
½	2.65	2.39	2.12	1.99	1.77	1.59	1.33	1.06	.93	.73	.66
⅝	2.95	2.66	2.36	2.21	1.97	1.77	1.48	1.18	1.03	.89	.74
¾	3.15	2.84	2.52	2.36	2.10	1.89	1.58	1.26	1.10	.95	.79
⅞	3.45	3.11	2.76	2.59	2.30	2.07	1.73	1.38	1.21	1.04	.86
1	3.75	3.38	3.00	2.81	2.50	2.25	1.88	1.50	1.31	1.13	.94
1⅛	4.05	3.65	3.24	3.04	2.70	2.43	2.03	1.62	1.42	1.22	1.01
1¼	4.35	3.92	3.48	3.26	2.90	2.61	2.18	1.74	1.52	1.31	1.09
1½	4.95	4.46	3.96	3.71	3.30	2.97	2.48	1.98	1.73	1.49	1.24
1¾	5.55	5.00	4.44	4.16	3.70	3.33	2.78	2.22	1.94	1.67	1.39
2	6.15	5.54	4.92	4.61	4.10	3.69	3.08	2.46	2.15	1.85	1.54
2¼	6.75	6.08	5.40	5.06	4.50	4.05	3.38	2.70	2.36	2.03	1.69
2½	7.35	6.62	5.88	5.51	4.90	4.41	3.68	2.94	2.57	2.21	1.84
2¾	8.00	7.20	6.40	6.00	5.33	4.80	4.00	3.20	2.80	2.40	2.00
3	8.65	7.79	6.92	6.49	5.77	5.19	4.33	3.46	3.03	2.60	2.16

3/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
½	7.10	6.39	5.68	5.33	4.73	4.26	3.55	2.84	2.49	2.13	1.78
⅝	7.70	6.93	6.16	5.78	5.13	4.62	3.85	3.08	2.70	2.31	1.93
¾	8.20	7.38	6.56	6.15	5.47	4.92	4.10	3.28	2.87	2.46	2.05
⅞	8.90	8.01	7.12	6.68	5.93	5.34	4.45	3.56	3.12	2.67	2.23
1	9.60	8.64	7.68	7.20	6.40	5.76	4.80	3.84	3.36	2.88	2.40
1⅛	10.30	9.27	8.24	7.73	6.87	6.18	5.15	4.12	3.61	3.09	2.58
1¼	11.00	9.90	8.80	8.25	7.33	6.60	5.50	4.40	3.85	3.30	2.75
1½	12.10	10.89	9.68	9.08	8.07	7.26	6.05	4.84	4.24	3.63	3.03
1¾	13.40	12.06	10.72	10.05	8.93	8.04	6.70	5.36	4.69	4.02	3.35
2	14.70	13.23	11.76	11.03	9.80	8.82	7.35	5.88	5.15	4.41	3.68
2¼	16.20	14.58	12.96	12.15	10.80	9.72	8.10	6.48	5.67	4.86	4.05
2½	17.80	16.02	14.24	13.35	11.87	10.68	8.90	7.12	6.23	5.34	4.45
2¾	19.50	17.55	15.60	14.63	13.00	11.70	9.75	7.80	6.83	5.85	4.88
3	21.60	19.44	17.28	16.20	14.40	12.96	10.80	8.64	7.56	6.48	5.40

5/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅜	4.60	4.14	3.68	3.45	3.07	2.76	2.30	1.84	1.61	1.38	1.15
7/16	4.80	4.32	3.84	3.60	3.20	2.88	2.40	1.92	1.68	1.44	1.20
½	5.00	4.50	4.00	3.75	3.33	3.00	2.50	2.00	1.75	1.50	1.25
⅝	5.40	4.86	4.32	4.05	3.60	3.24	2.70	2.16	1.89	1.62	1.35
¾	5.80	5.22	4.64	4.35	3.87	3.48	2.90	2.32	2.03	1.74	1.45
⅞	6.30	5.67	5.04	4.73	4.20	3.78	3.15	2.52	2.21	1.89	1.58
1	6.80	6.12	5.44	5.10	4.53	4.08	3.40	2.72	2.38	2.04	1.70
1⅛	7.30	6.57	5.84	5.48	4.87	4.38	3.65	2.92	2.56	2.19	1.83
1¼	7.80	7.02	6.24	5.85	5.20	4.68	3.90	3.12	2.73	2.34	1.95
1½	8.50	7.65	6.80	6.38	5.67	5.10	4.25	3.40	2.98	2.55	2.13
1¾	9.30	8.37	7.44	6.98	6.20	5.58	4.65	3.72	3.26	2.79	2.33
2	10.40	9.36	8.32	7.80	6.93	6.24	5.20	4.16	3.64	3.12	2.60
2¼	11.50	10.35	9.20	8.63	7.67	6.90	5.75	4.60	4.03	3.45	2.88
2½	12.60	11.34	10.08	9.45	8.40	7.56	6.30	5.04	4.41	3.78	3.15
2¾	13.70	12.33	10.96	10.28	9.13	8.22	6.85	5.48	4.80	4.11	3.43
3	14.90	13.41	11.92	11.18	9.93	8.94	7.45	5.96	5.22	4.47	3.73

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 5/16-inch diameter brass machine screws, 1¼ inches in length. Find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of $4.68 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per gross** as adopted April 2, 1928.

STEEL MACHINE SCREWS—Flat, Round, Oval and Fillister Heads

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per gross as adopted April 2, 1928

NO. 2 DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅛	.24	.22	.19	.18	.16	.14	.12	.10	.08	.07	.06
3/16	.25	.23	.20	.19	.17	.15	.13	.10	.09	.08	.06
¼	.26	.23	.21	.20	.17	.16	.13	.10	.09	.08	.07
5/16	.27	.24	.22	.20	.18	.16	.14	.11	.09	.08	.07
⅜	.28	.25	.22	.21	.19	.17	.14	.11	.10	.08	.07
7/16	.29	.26	.23	.22	.19	.17	.15	.12	.10	.09	.07
½	.30	.27	.24	.23	.20	.18	.15	.12	.11	.09	.08
⅝	.32	.29	.26	.24	.21	.19	.16	.13	.11	.10	.08
¾	.33	.30	.26	.25	.22	.20	.17	.13	.12	.10	.08
⅞	.34	.31	.27	.26	.23	.20	.17	.14	.12	.10	.09

NO. 4 DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅛	.26	.23	.21	.20	.17	.16	.13	.10	.09	.08	.07
3/16	.27	.24	.22	.20	.18	.16	.14	.11	.09	.08	.07
¼	.28	.25	.22	.21	.19	.17	.14	.11	.10	.08	.07
5/16	.29	.26	.23	.22	.19	.17	.15	.12	.10	.09	.07
⅜	.30	.27	.24	.23	.20	.18	.15	.12	.11	.09	.08
7/16	.31	.28	.25	.23	.21	.19	.16	.12	.11	.09	.08
½	.32	.29	.26	.24	.21	.19	.16	.13	.11	.10	.08
⅝	.34	.31	.27	.26	.23	.20	.17	.14	.12	.10	.09
¾	.36	.32	.29	.27	.24	.22	.18	.14	.13	.11	.09
⅞	.38	.34	.30	.29	.25	.23	.19	.15	.13	.11	.10
1	.42	.38	.34	.32	.28	.25	.21	.17	.15	.13	.11
1⅛	.46	.41	.37	.35	.31	.28	.23	.18	.16	.14	.12
1¼	.52	.47	.42	.39	.35	.31	.26	.21	.18	.16	.13
1½	.60	54	.48	.45	.40	.36	.30	.24	.21	.18	.15

NO. 6 DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅛	.28	.25	.22	.21	.19	.17	.14	.11	.10	.08	.07
3/16	.29	.26	.23	.22	.19	.17	.15	.12	.10	.09	.07
¼	.30	.27	.24	.23	.20	.18	.15	.12	.11	.09	.08
5/16	.31	.28	.25	.23	.21	.19	.16	.12	.11	.09	.08
⅜	.32	.29	.26	.24	.21	.19	.16	.13	.11	.10	.08
7/16	.34	.31	.29	.26	.23	.20	.17	.14	.12	.10	.09
½	.36	.32	.29	.27	.24	.22	.18	.14	.13	.11	.09
⅝	.40	.36	.32	.30	.27	.24	.20	.16	.14	.12	.10
¾	.43	.39	.34	.32	.29	.26	.22	.17	.15	.13	.11
⅞	.46	.41	.37	.35	.31	.28	.23	.18	.16	.14	.12
1	.50	.45	.40	.38	.33	.30	.25	.20	.18	.15	.13
1⅛	.54	.49	.43	.41	.36	.32	.27	.22	.19	.16	.14
1¼	.58	.52	.46	.44	.39	.35	.29	.23	.20	.17	.15
1½	.68	.61	.54	.51	.45	.41	.34	.27	.24	.20	.17
1¾	.82	.74	.66	.62	.55	.49	.41	.33	.29	.25	.21
2	.96	.86	.77	.72	.64	.58	.48	.38	.34	.29	.24

NO. 8 DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
3/16	.35	.32	.28	.26	.23	.21	.18	.14	.12	.11	.09
¼	.36	.32	.29	.27	.24	.22	.18	.14	.13	.11	.09
5/16	.37	.33	.30	.28	.25	.22	.19	.15	.13	.11	.09
⅜	.39	.35	.31	.30	.26	.23	.20	.16	.14	.12	.10
7/16	.41	.37	.33	.31	.27	.25	.21	.16	.14	.12	.10
½	.43	.39	.34	.32	.29	.26	.22	.17	.15	.13	.11
⅝	.47	.42	.38	.35	.31	.28	.24	.19	.16	.14	.12
¾	.49	.44	.39	.37	.33	.29	.25	.20	.17	.15	.12
⅞	.53	.48	.42	.40	.35	.32	.27	.21	.19	.16	.13
1	.57	.51	.46	.43	.38	.34	.29	.23	.20	.17	.14
1⅛	.63	.57	.50	.47	.42	.38	.32	.25	.22	.19	.16
1¼	.69	.62	.55	.52	.46	.41	.35	.28	.24	.21	.17
1½	.82	.74	.66	.62	.55	.49	.41	.33	.29	.25	.21
1¾	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
2	1.08	.97	.86	.81	.72	.65	.54	.43	.38	.32	.27
2¼	1.25	1.13	1.00	.94	.83	.75	.63	.50	.44	.38	.31
2½	1.45	1.31	1.16	1.09	.97	.87	.73	.58	.51	.44	.36
2¾	1.65	1.49	1.32	1.24	1.10	.99	.83	.66	.58	.50	.41
3	1.85	1.67	1.48	1.39	1.23	1.11	.93	.74	.65	.56	.46

STEEL MACHINE SCREWS—Flat, Round, Oval and Fillister Head

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 60 per cent is desired on 1/4-inch diameter steel machine screws 3/4 of an inch in length—find the proper length line and follow it along until the 60 per cent column is reached where the correct net price of .42 will be found.

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
2½	1.45	1.31	1.16	1.09	.97	.87	.73	.58	.51	.44	.36
2¾	1.65	1.49	1.32	1.24	1.10	.99	.83	.66	.58	.50	.41
3	1.85	1.67	1.48	1.39	1.23	1.11	.93	.74	.65	.56	.46

STEEL MACHINE SCREWS—Flat, Round, Oval and Fillister Head

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 60 per cent is desired on 1/4-inch diameter steel machine screws 3/4 of an inch in length—find the proper length line and follow it along until the 60 per cent column is reached where the correct net price of .42 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per gross** as adopted April 2, 1928.

NO. 10 DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
3/16	.45	.41	.36	.34	.30	.27	.23	.18	.16	.14	.11
¼	.46	.41	.37	.35	.31	.28	.23	.18	.16	.14	.12
5/16	.48	.43	.38	.36	.32	.29	.24	.19	.17	.14	.12
⅜	.50	.45	.40	.38	.33	.30	.25	.20	.18	.15	.13
7/16	.52	.47	.42	.39	.35	.31	.26	.21	.18	.16	.13
½	.54	.49	.43	.41	.36	.32	.27	.22	.19	.16	.14
⅝	.58	.52	.46	.44	.39	.35	.29	.23	.20	.17	.15
¾	.62	.56	.50	.47	.41	.37	.31	.25	.22	.19	.16
⅞	.66	.59	.53	.50	.44	.40	.33	.26	.23	.20	.17
1	.70	.63	.56	.53	.47	.42	.35	.28	.25	.21	.18
1⅛	.76	.68	.61	.57	.51	.46	.38	.30	.27	.23	.19
1¼	.82	.74	.66	.62	.55	.49	.41	.33	.29	.25	.21
1½	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
1¾	1.12	1.01	.90	.84	.75	.67	.56	.45	.39	.34	.28
2	1.30	1.17	1.04	.98	.87	.78	.65	.52	.46	.39	.33
2¼	1.50	1.35	1.20	1.13	1.00	.90	.75	.60	.53	.45	.38
2½	1.70	1.53	1.36	1.28	1.13	1.02	.85	.68	.60	.51	.43
2¾	1.90	1.71	1.52	1.43	1.27	1.14	.95	.76	.67	.57	.48
3	2.15	1.94	1.72	1.61	1.43	1.29	1.08	.86	.75	.65	.54

1/4 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
5/16	.80	.72	.64	.60	.53	.48	.40	.32	.28	.24	.20
⅜	.84	.76	.67	.63	.56	.50	.42	.34	.29	.25	.21
7/16	.88	.79	.70	.66	.59	.53	.44	.35	.31	.26	.22
½	.92	.83	.74	.69	.61	.55	.46	.37	.32	.28	.23
⅝	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25
¾	1.05	.95	.84	.79	.70	.63	.53	.42	.37	.32	.26
⅞	1.10	.99	.88	.83	.73	.66	.55	.44	.39	.33	.28
1	1.20	1.08	.96	.90	.80	.72	.60	.48	.42	.36	.30
1⅛	1.30	1.17	1.04	.98	.87	.78	.65	.52	.46	.39	.33
1¼	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.49	.42	.35
1½	1.60	1.44	1.28	1.20	1.07	.96	.80	.64	.56	.48	.40
1¾	1.80	1.62	1.44	1.35	1.20	1.08	.90	.72	.63	.54	.45
2	2.00	1.80	1.60	1.50	1.33	1.20	1.00	.80	.70	.60	.50
2¼	2.25	2.03	1.80	1.69	1.50	1.35	1.13	.90	.79	.68	.56
2½	2.50	2.25	2.00	1.88	1.67	1.50	1.25	1.00	.88	.75	.63
2¾	2.75	2.48	2.20	2.06	1.83	1.65	1.38	1.10	.96	.83	.69
3	3.10	2.79	2.48	2.33	2.07	1.86	1.55	1.24	1.09	.93	.78

NO. 12 DIAMETER

Lgth.	List	DISCOUNTS										
		5	10	20	25	33⅓	40	50	60	65	70	75
¼	.64	.61	.58	.51	.48	.43	.38	.32	.26	.22	.19	.16
5/16	.66	.63	.59	.53	.50	.44	.40	.33	.26	.23	.20	.17
⅜	.68	.65	.61	.54	.51	.45	.41	.34	.27	.24	.20	.17
7/16	.70	.67	.63	.56	.53	.47	.42	.35	.28	.25	.21	.18
½	.74	.70	.67	.59	.56	.49	.44	.37	.30	.26	.22	.19
⅝	.82	.78	.74	.66	.62	.55	.49	.41	.33	.29	.25	.21
¾	.86	.82	.77	.69	.65	.57	.52	.43	.34	.30	.26	.22
⅞	.92	.87	.83	.74	.69	.61	.55	.46	.37	.32	.28	.23
1	.98	.93	.88	.78	.74	.65	.59	.49	.39	.34	.29	.25
1⅛	1.04	.99	.94	.83	.78	.69	.62	.52	.42	.36	.31	.26
1¼	1.10	1.05	.99	.88	.83	.73	.66	.55	.44	.39	.33	.28
1½	1.24	1.18	1.12	.99	.93	.83	.74	.62	.50	.43	.37	.31
1¾	1.40	1.33	1.26	1.12	1.05	.93	.84	.70	.56	.49	.42	.35
2	1.60	1.52	1.44	1.28	1.20	1.07	.96	.80	.64	.56	.48	.40
2¼	1.80	1.71	1.62	1.44	1.35	1.20	1.08	.90	.72	.63	.54	.45
2½	2.05	1.95	1.85	1.64	1.54	1.37	1.23	1.03	.82	.72	.62	.51
2¾	2.30	2.19	2.07	1.84	1.73	1.53	1.38	1.15	.92	.81	.69	.58
3	2.60	2.47	2.34	2.08	1.95	1.73	1.56	1.30	1.04	.91	.78	.65

5/16 INCH DIAMETER

Lgth.	List	DISCOUNTS										
		5	10	20	25	33⅓	40	50	60	65	70	75
⅜	1.55	1.47	1.40	1.24	1.16	1.03	.93	.78	.62	.54	.47	.39
7/16	1.60	1.52	1.44	1.28	1.20	1.07	.96	.80	.64	.56	.48	.40
½	1.65	1.57	1.49	1.32	1.24	1.10	.99	.83	.66	.58	.50	.41
⅝	1.75	1.66	1.58	1.40	1.31	1.17	1.05	.88	.70	.61	.53	.44
¾	1.80	1.71	1.62	1.44	1.35	1.20	1.08	.90	.72	.63	.54	.45
⅞	1.90	1.81	1.71	1.52	1.43	1.27	1.14	.95	.76	.67	.57	.48
1	2.00	1.90	1.80	1.60	1.50	1.33	1.20	1.00	.80	.70	.60	.50
1⅛	2.10	2.00	1.89	1.68	1.58	1.40	1.26	1.05	.84	.74	.63	.53
1¼	2.25	2.14	2.03	1.80	1.69	1.50	1.35	1.13	.90	.79	.68	.56
1½	2.45	2.33	2.21	1.96	1.84	1.63	1.47	1.23	.98	.86	.74	.61
1¾	2.75	2.61	2.48	2.20	2.06	1.83	1.65	1.38	1.10	.96	.83	.69
2	3.05	2.90	2.75	2.44	2.29	2.03	1.83	1.53	1.22	1.07	.92	.76
2¼	3.35	3.18	3.02	2.68	2.51	2.23	2.01	1.68	1.34	1.17	1.01	.84
2½	3.65	3.47	3.29	2.92	2.74	2.44	2.19	1.83	1.46	1.28	1.10	.91
2¾	4.00	3.80	3.60	3.20	3.00	2.67	2.40	2.00	1.60	1.40	1.20	1.00
3	4.40	4.18	3.96	3.52	3.30	2.93	2.64	2.20	1.76	1.54	1.32	1.10

STEEL & BRASS MACHINE SCREW NUTS

Square & Hexagon

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per gross

SQUARE, STEEL MACHINE SCREW NUTS

Size	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
2	.40	.36	.32	.30	.27	.24	.20	.16	.14	.12	.10
3	.40	.36	.32	.30	.27	.24	.20	.16	.14	.12	.10
4	.31	.28	.25	.23	.21	.19	.16	.12	.11	.09	.08
5	.33	.30	.26	.25	.22	.20	.17	.13	.12	.10	.08
6	.33	.30	.26	.25	.22	.20	.17	.13	.12	.10	.08
8	.35	.32	.28	.26	.23	.21	.18	.14	.12	.11	.09
10	.37	.33	.30	.28	.25	.22	.19	.15	.13	.11	.09
12	.56	.50	.45	.42	.37	.34	.28	.22	.20	.17	.14
1/4	.63	.57	.50	.47	.42	.38	.32	.25	.22	.19	.16
5/16	1.10	.99	.88	.83	.73	.66	.55	.44	.39	.33	.28
3/8	1.50	1.35	1.20	1.13	1.00	.90	.75	.60	.53	.45	.38

SQUARE, BRASS MACHINE SCREW NUTS

Size	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
2	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
3	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
4	.80	.72	.64	.60	.53	.48	.40	.32	.28	.24	.20
5	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25
6	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25
8	1.25	1.13	1.00	.94	.83	.75	.63	.50	.44	.38	.31
10	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.49	.42	.35
12	2.40	2.16	1.92	1.80	1.60	1.44	1.20	.96	.84	.72	.60
1/4	2.80	2.52	2.24	2.10	1.87	1.68	1.40	1.12	.98	.84	.70
5/16	5.70	5.13	4.56	4.28	3.80	3.42	2.85	2.28	2.00	1.71	1.43
3/8	7.80	7.02	6.24	5.85	5.20	4.68	3.90	3.12	2.73	2.34	1.95

HEXAGON, STEEL MACHINE SCREW NUTS

Size	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
2	.45	.41	.36	.34	.30	.27	.23	.18	.16	.14	.11
3	.45	.41	.36	.34	.30	.27	.23	.18	.16	.14	.11
4	.34	.31	.27	.26	.23	.20	.17	.14	.12	.10	.09
5	.36	.31	.27	.26	.24	.20	.18	.14	.13	.11	.09
6	.36	.31	.27	.26	.24	.20	.18	.14	.13	.11	.09
8	.40	.36	.32	.30	.27	.24	.20	.16	.14	.12	.10
10	.43	.39	.34	.32	.29	.26	.22	.17	.15	.13	.11
12	.63	.57	.50	.47	.42	.38	.32	.25	.22	.19	.16
1/4	.72	.65	.58	.54	.48	.43	.36	.29	.25	.22	.18
5/16	1.35	1.22	1.08	1.01	.90	.81	.68	.54	.47	.41	.34
3/8	1.70	1.53	1.36	1.28	1.13	1.02	.85	.68	.60	.51	.43

HEXAGON, BRASS MACHINE SCREW NUTS

Size	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
2	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
3	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
4	.80	.72	.64	.60	.53	.48	.40	.32	.28	.24	.20
5	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25
6	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25
8	1.25	1.13	1.00	.94	.83	.75	.63	.50	.44	.38	.31
10	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.49	.42	.35
12	2.40	2.16	1.92	1.80	1.60	1.44	1.20	.96	.84	.72	.60
1/4	2.80	2.52	2.24	2.10	1.87	1.68	1.40	1.12	.98	.84	.70
5/16	5.70	5.13	4.56	4.28	3.80	3.42	2.85	2.28	2.00	1.71	1.43
3/8	7.80	7.02	6.24	5.85	5.20	4.68	3.90	3.12	2.73	2.34	1.95

MACHINE SCREW NUTS

Hexagon Brass—Double Chamfered

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 3/16-inch, square stove bolt nuts—find the proper length line and follow is along until the 40 per cent column is reached where the correct net price of .16 per 100 will be found. Other discounts on varying sizes are determined in the same manner. **List prices are per gross** on machine screw nuts and **per 100** on stove bolt nuts, as adopted Nov. 1, 1934.

Size	Threads	Dimensions		List	DISCOUNTS									
		Across Flats	Thickness		10	20	25	33⅓	40	50	60	65	70	75
2	56, 64	3/16	1/6	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
3	48, 56	3/16	1/6	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
4	36	3/16	1/6	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
4	32, 36, 40	¼	5/64	.76	.68	.61	.57	.51	.46	.38	.30	.27	.23	.19
5	40	¼	5/64	.76	.68	.61	.57	.51	.46	.38	.30	.27	.23	.19
6	32	¼	5/64	.76	.68	.61	.57	.51	.46	.38	.30	.27	.23	.19
8	32	¼	5/64	.76	.68	.61	.57	.51	.46	.38	.30	.27	.23	.19
6	32	5/16	3/32	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
8	32	5/16	3/32	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
10	24, 32	5/16	3/32	.95	.86	.76	.71	.63	.57	.48	.38	.33	.29	.24
6	32, 40	5/16	7/64	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25
8	32	5/16	7/64	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25
10	24, 32	5/16	7/64	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25
8	32	11/32	⅛	1.25	1.13	1.00	.94	.83	.75	.63	.50	.44	.38	.31
8	32	⅜	3/32	1.20	1.08	.96	.90	.80	.72	.60	.48	.42	.36	.30
10	24, 32	⅜	3/32	1.20	1.08	.96	.90	.80	.72	.60	.48	.42	.36	.30
8	32	⅜	⅛	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.49	.42	.35
10	24, 32	⅜	⅛	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.49	.42	.35
12	24	⅜	⅛	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.49	.42	.35
12	24	7/16	⅛	2.10	1.89	1.68	1.58	1.40	1.26	1.05	.84	.74	.63	.53
14	20	7/16	⅛	2.10	1.89	1.68	1.58	1.40	1.26	1.05	.84	.74	.63	.53
¼	20	7/16	⅛	2.10	1.89	1.68	1.58	1.40	1.26	1.05	.84	.74	.63	.53
12	24	7/16	5/32	2.40	2.16	1.92	1.80	1.60	1.44	1.20	.96	.84	.72	.60
14	20	7/16	5/32	2.40	2.16	1.92	1.80	1.60	1.44	1.20	.96	.84	.72	.60
¼	20	7/16	5/32	2.40	2.16	1.92	1.80	1.60	1.44	1.20	.96	.84	.72	.60
14	20, 24	½	⅛	2.70	2.43	2.16	2.03	1.71	1.62	1.35	1.08	.95	.81	.68
¼	20	½	⅛	2.70	2.43	2.16	2.03	1.71	1.62	1.35	1.08	.95	.81	.68
14	24	½	5/32	3.10	2.79	2.48	2.33	2.07	1.86	1.55	1.24	1.09	.93	.78
¼	20	½	5/32	3.10	2.79	2.48	2.33	2.07	1.86	1.55	1.24	1.09	.93	.78

STOVE BOLT NUTS, SQUARE

Size	List Per 100	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅛	.23	.21	.18	.17	.15	.14	.12	.09	.08	.07	.06
5/32	.24	.22	.19	.18	.16	.14	.12	.10	.08	.07	.06
3/16	.26	.23	.21	.20	.17	.16	.13	.10	.09	.08	.07
¼	.44	.40	.35	.33	.29	.26	.22	.18	.15	.13	.11
5/16	.76	.68	.61	.57	.51	.46	.38	.30	.27	.23	.19
⅜	1.04	.94	.83	.78	.69	.62	.52	.42	.36	.31	.26
½	1.67	1.50	1.34	1.25	1.11	1.00	.84	.67	.58	.50	.42

STOVE BOLTS — Flat and Round Head

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per 100 as adopted May 1, 1934

1/8 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅜	.57	.51	.46	.43	.38	.34	.29	.23	.20	.17	.14
½	.60	.54	.48	.45	.40	.36	.30	.24	.21	.18	.15
⅝	.63	.57	.50	.47	.42	.38	.32	.25	.22	.19	.16
¾	.66	.59	.53	.50	.44	.40	.33	.26	.23	.20	.17
⅞	.68	.61	.54	.51	.45	.41	.34	.27	.24	.20	.17
1	.71	.64	.57	.53	.47	.43	.36	.28	.25	.21	.18
1⅛	.76	.68	.61	.57	.51	.46	.38	.30	.27	.23	.19
1¼	.80	.72	.64	.60	.53	.48	.40	.32	.28	.24	.20
1⅜	.84	.76	.67	.63	.56	.50	.42	.34	.29	.25	.21
1½	.89	.80	.71	.67	.59	.53	.45	.36	.31	.27	.22
1¾	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25
2	1.11	1.00	.89	.83	.74	.67	.56	.44	.39	.33	.28

3/16 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅜	.67	.60	.54	.50	.45	.40	.34	.27	.23	.20	.17
½	.70	.63	.56	.53	.47	.42	.35	.28	.25	.21	.18
⅝	.73	.66	.58	.55	.49	.44	.37	.29	.26	.22	.18
¾	.76	.68	.61	.57	.51	.46	.38	.30	.27	.23	.19
⅞	.79	.71	.63	.59	.53	.47	.40	.32	.28	.24	.20
1	.83	.75	.66	.62	.55	.50	.42	.33	.29	.25	.21
1⅛	.86	.77	.69	.65	.57	.52	.43	.34	.30	.26	.22
1¼	.90	.81	.72	.68	.60	.54	.45	.36	.32	.27	.23
1⅜	.96	.86	.77	.72	.64	.58	.48	.38	.34	.29	.24
1½	1.01	.91	.81	.76	.67	.61	.51	.40	.35	.30	.25
1¾	1.12	1.01	.90	.84	.75	.67	.56	.45	.39	.34	.28
2	1.27	1.14	1.02	.95	.85	.76	.64	.51	.44	.38	.32
2¼	1.41	1.27	1.13	1.06	.94	.85	.71	.56	.49	.42	.35
2½	1.59	1.43	1.27	1.19	1.06	.95	.80	.64	.56	.48	.40
2¾	1.77	1.59	1.42	1.33	1.18	1.06	.89	.71	.62	.53	.44
3	1.95	1.76	1.56	1.46	1.30	1.17	.98	.78	.68	.59	.49
3½	2.25	2.03	1.80	1.69	1.50	1.35	1.13	.90	.79	.68	.56
4	2.55	2.30	2.04	1.91	1.70	1.53	1.28	1.02	.89	.77	.64
4½	2.85	2.57	2.28	2.14	1.90	1.71	1.43	1.14	1.00	.86	.71
5	3.15	2.84	2.52	2.36	2.10	1.89	1.58	1.26	1.10	.95	.79
5½	3.45	3.11	2.76	2.59	2.30	2.07	1.73	1.38	1.21	1.04	.86
6	3.75	3.38	3.00	2.81	2.50	2.25	1.88	1.50	1.31	1.13	.94

1/4 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
½	1.12	1.01	.90	.84	.75	.67	.56	.45	.39	.34	.28
⅝	1.18	1.06	.94	.89	.79	.71	.59	.47	.41	.35	.30
¾	1.25	1.13	1.00	.94	.83	.75	.63	.50	.44	.38	.31
⅞	1.31	1.18	1.05	.98	.87	.79	.66	.52	.46	.39	.33
1	1.38	1.24	1.10	1.04	.92	.83	.69	.55	.48	.41	.35
1⅛	1.44	1.30	1.15	1.08	.96	.86	.72	.58	.50	.43	.36
1¼	1.51	1.36	1.21	1.13	1.01	.91	.76	.60	.53	.45	.38
1⅜	1.57	1.41	1.26	1.18	1.05	.94	.79	.63	.55	.47	.39
1½	1.64	1.48	1.31	1.23	1.09	.98	.82	.66	.57	.49	.41
1¾	1.80	1.62	1.44	1.35	1.20	1.08	.90	.72	.63	.54	.45
2	1.98	1.78	1.58	1.49	1.32	1.19	.99	.79	.69	.59	.50
2¼	2.16	1.94	1.73	1.62	1.44	1.30	1.08	.86	.76	.65	.54
2½	2.34	2.11	1.87	1.76	1.56	1.40	1.17	.94	.82	.70	.59
2¾	2.55	2.30	2.04	1.91	1.70	1.53	1.28	1.02	.89	.77	.64
3	2.75	2.48	2.20	2.06	1.83	1.65	1.38	1.10	.96	.83	.69
3½	3.10	2.79	2.48	2.33	2.07	1.86	1.55	1.24	1.09	.93	.78
4	3.45	3.11	2.76	2.59	2.30	2.07	1.73	1.38	1.21	1.04	.86
4½	3.80	3.42	3.04	2.85	2.53	2.28	1.90	1.52	1.33	1.14	.95
5	4.15	3.74	3.32	3.11	2.77	2.49	2.08	1.66	1.45	1.25	1.04
5½	4.50	4.05	3.60	3.38	3.00	2.70	2.25	1.80	1.58	1.35	1.13
6	4.85	4.37	3.88	3.64	3.23	2.91	2.43	1.94	1.70	1.46	1.21

5/32 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
⅜	.57	.51	.46	.43	.38	.34	.29	.23	.20	.17	.14
½	.60	.54	.48	.45	.40	.36	.30	.24	.21	.18	.15
⅝	.63	.57	.50	.47	.42	.38	.32	.25	.22	.19	.16
¾	.66	.59	.53	.50	.44	.40	.33	.26	.23	.20	.17
⅞	.68	.61	.54	.51	.45	.41	.34	.27	.24	.20	.17
1	.71	.64	.57	.53	.47	.43	.36	.28	.25	.21	.18
1⅛	.76	.68	.61	.57	.51	.46	.38	.30	.27	.23	.19
1¼	.80	.72	.64	.60	.53	.48	.40	.32	.28	.24	.20
1⅜	.84	.76	.67	.63	.56	.50	.42	.34	.29	.25	.21
1½	.89	.80	.71	.67	.59	.53	.45	.36	.31	.27	.22
1¾	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
5½	3.45	3.11	2.76	2.59	2.30	2.07	1.73	1.38	1.21	1.04	.86
6	3.75	3.38	3.00	2.81	2.50	2.25	1.88	1.50	1.31	1.13	.94

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
1¾	1.00	.90	.80	.75	.67	.60	.50	.40	.35	.30	.25

STOVE BOLTS—Flat and Round Head

5/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
¾	2.12	1.91	1.70	1.59	1.41	1.27	1.06	.85	.74	.64	.53
⅞	2.20	1.98	1.76	1.65	1.47	1.32	1.10	.88	.77	.66	.55
1	2.27	2.04	1.82	1.66	1.51	1.36	1.14	.91	.79	.68	.57
1⅛	2.34	2.11	1.87	1.76	1.56	1.40	1.17	.94	.82	.70	.59
1¼	2.41	2.17	1.93	1.81	1.61	1.45	1.21	.96	.84	.72	.60
1⅜	2.50	2.25	2.00	1.88	1.67	1.50	1.25	1.00	.88	.75	.63
1½	2.59	2.33	2.07	1.94	1.73	1.55	1.30	1.04	.91	.78	.65
1⅝	2.77	2.49	2.22	2.08	1.85	1.66	1.39	1.11	.97	.83	.69
2	3.00	2.70	2.40	2.25	2.00	1.80	1.50	1.20	1.05	.90	.75
2¼	3.20	2.88	2.56	2.40	2.13	1.92	1.60	1.28	1.12	.96	.80
2½	3.45	3.11	2.76	2.59	2.30	2.07	1.73	1.38	1.21	1.04	.86
2¾	3.70	3.33	2.96	2.78	2.47	2.22	1.85	1.48	1.30	1.11	.93
3	3.95	3.56	3.16	2.96	2.63	2.37	1.98	1.58	1.50	1.19	.99
3½	4.40	3.96	3.52	3.30	2.93	2.64	2.20	1.76	1.54	1.32	1.10
4	4.85	4.37	3.88	3.64	3.23	2.91	2.43	1.94	1.70	1.46	1.21
4½	5.30	4.77	4.24	3.98	3.53	3.18	2.65	2.12	1.86	1.59	1.33
5	5.75	5.18	4.60	4.31	3.83	3.45	2.88	2.30	2.01	1.73	1.44
5½	6.20	5.58	4.96	4.65	4.13	3.72	3.10	2.48	2.17	1.86	1.55
6	6.65	5.99	5.32	4.99	4.43	3.99	3.33	2.66	2.33	2.00	1.66

1/2 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
1	8.80	7.92	7.04	6.60	5.87	5.28	4.40	3.52	3.08	2.64	2.20
1⅛	9.00	8.10	7.20	6.75	6.00	5.40	4.50	3.60	3.15	2.70	2.25
1¼	9.20	8.28	7.36	6.90	6.13	5.52	4.60	3.68	3.22	2.76	2.30
1⅜	9.40	8.46	7.52	7.05	6.27	5.64	4.70	3.76	3.29	2.82	2.35
1½	9.60	8.64	7.68	7.20	6.40	5.76	4.80	3.84	3.36	2.88	2.40
1¾	10.00	9.00	8.00	7.50	6.67	6.00	5.00	4.00	3.50	3.00	2.50
2	10.50	9.45	8.40	7.88	7.00	6.30	5.25	4.20	3.68	3.15	2.63
2¼	11.10	9.99	8.88	8.33	7.40	6.66	5.55	4.44	3.89	3.33	2.78
2½	11.70	10.53	9.36	8.78	7.80	7.02	5.85	4.68	4.10	3.51	2.93
2¾	12.30	11.07	9.84	9.23	8.20	7.38	6.15	4.92	4.31	3.69	3.08
3	13.00	11.70	10.40	9.75	8.67	7.80	6.50	5.20	4.55	3.90	3.25

3/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	33⅓	40	50	60	65	70	75
¾	2.90	2.61	2.32	2.18	1.93	1.74	1.45	1.16	1.02	.87	.73
⅞	3.00	2.70	2.40	2.25	2.00	1.80	1.50	1.20	1.05	.90	.75
1	3.10	2.79	2.48	2.33	2.07	1.86	1.55	1.24	1.09	.93	.78
1⅛	3.20	2.88	2.56	2.40	2.13	1.92	1.60	1.28	1.12	.96	.80
1¼	3.30	2.97	2.64	2.48	2.20	1.98	1.65	1.32	1.16	.99	.83
1⅜	3.40	3.06	2.72	2.55	2.27	2.04	1.70	1.36	1.19	1.02	.85
1½	3.50	3.15	2.80	2.63	2.33	2.10	1.75	1.40	1.23	1.05	.88
1¾	3.75	3.38	3.00	2.81	2.50	2.25	1.88	1.50	1.31	1.13	.94
2	4.00	3.60	3.20	3.00	2.67	2.40	2.00	1.60	1.40	1.20	1.00
2¼	4.25	3.83	3.40	3.19	2.83	2.55	2.13	1.70	1.49	1.28	1.06
2½	4.55	4.10	3.64	3.41	3.03	2.73	2.28	1.82	1.59	1.37	1.14
2¾	4.80	4.32	3.84	3.60	3.20	2.88	2.40	1.92	1.68	1.44	1.20
3	5.20	4.68	4.16	3.90	3.47	3.12	2.60	2.08	1.82	1.56	1.30
3½	5.80	5.22	4.64	4.35	3.87	3.48	2.90	2.32	2.03	1.74	1.45
4	6.40	5.76	5.12	4.80	4.27	3.84	3.20	2.56	2.24	1.92	1.60
4½	7.00	6.30	5.60	5.25	4.67	4.20	3.50	2.80	2.45	2.10	1.75
5	7.00	6.30	5.60	5.25	4.67	4.20	3.50	2.80	2.45	2.10	1.75

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on ⅜-inch diameter stove bolts, 1 inch in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of $1.86 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted May 1, 1934.

STEEL WOOD SCREWS—Bright–Blued–Nickled–Round Head and Flat Head

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per gross as adopted Nov. 20, 1935

1/4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
0	.30	.27	.24	.23	.21	.20	.18	.17	.15	.14	.12	.11	.09	.08
1	.30	.27	.24	.23	.21	.20	.18	.17	.15	.14	.12	.11	.09	.08
2	.30	.27	.24	.23	.21	.20	.18	.17	.15	.14	.12	.11	.09	.08
3	.32	.29	.26	.24	.22	.21	.19	.18	.16	.14	.13	.11	.10	.08
4	.32	.29	.26	.24	.22	.21	.19	.18	.16	.14	.13	.11	.10	.08

3/8 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
0	.32	.29	.26	.24	.22	.21	.19	.18	.16	.14	.13	.11	.10	.08
1	.32	.29	.26	.24	.22	.21	.19	.18	.16	.14	.13	.11	.10	.08
2	.32	.29	.26	.24	.22	.21	.19	.18	.16	.14	.13	.11	.10	.08
3	.34	.31	.27	.26	.24	.22	.20	.19	.17	.15	.14	.12	.10	.09
4	.34	.31	.27	.26	.24	.22	.20	.19	.17	.15	.14	.12	.10	.09
5	.34	.31	.27	.26	.24	.22	.20	.19	.17	.15	.14	.12	.10	.09
6	.38	.34	.30	.29	.27	.25	.23	.21	.19	.17	.15	.13	.11	.10
7	.42	.38	.34	.32	.29	.27	.25	.23	.21	.19	.17	.15	.13	.11
8	.46	.41	.37	.35	.32	.30	.28	.25	.23	.21	.18	.16	.14	.12

1/2 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
1	.34	.31	.27	.26	.24	.22	.20	.19	.17	.15	.14	.12	.10	.09
2	.34	.31	.27	.26	.24	.22	.20	.19	.17	.15	.14	.12	.10	.09
3	.36	.32	.29	.27	.25	.23	.22	.20	.18	.16	.14	.13	.11	.09
4	.36	.32	.29	.27	.25	.23	.22	.20	.18	.16	.14	.13	.11	.09
5	.36	.32	.29	.27	.25	.23	.22	.20	.18	.16	.14	.13	.11	.09
6	.40	.36	.32	.30	.28	.26	.24	.22	.20	.18	.16	.14	.12	.10
7	.44	.40	.35	.33	.31	.29	.26	.24	.22	.20	.18	.15	.13	.11
8	.48	.43	.38	.36	.34	.31	.29	.26	.24	.22	.19	.17	.14	.12
9	.52	.47	.42	.39	.36	.34	.31	.29	.26	.23	.21	.18	.16	.13
10	.56	.50	.45	.42	.39	.36	.34	.31	.28	.25	.22	.20	.17	.14

5/8 INCH LENGTH

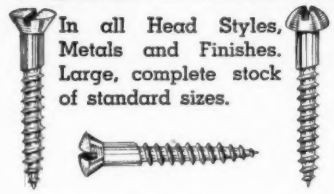
Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
2	.36	.32	.29	.27	.25	.23	.22	.20	.18	.16	.14	.13	.11	.09
3	.38	.34	.30	.29	.27	.25	.23	.21	.19	.17	.15	.13	.11	.10
4	.38	.34	.30	.29	.27	.25	.23	.21	.19	.17	.15	.13	.11	.10
5	.40	.36	.32	.30	.28	.26	.24	.22	.20	.18	.16	.14	.12	.10
6	.44	.40	.35	.33	.31	.29	.26	.24	.22	.20	.18	.15	.13	.11
7	.48	.43	.38	.36	.34	.31	.29	.26	.24	.22	.19	.17	.14	.12
8	.52	.47	.42	.39	.36	.34	.31	.29	.26	.23	.21	.18	.16	.13
9	.56	.50	.45	.42	.39	.36	.34	.31	.28	.25	.22	.20	.17	.14
10	.60	.54	.48	.45	.42	.39	.36	.33	.30	.27	.24	.21	.18	.15
11	.64	.58	.51	.48	.45	.42	.38	.35	.32	.29	.26	.22	.19	.16
12	.68	.61	.54	.51	.48	.44	.41	.37	.34	.31	.27	.24	.20	.17

HOLTITE

Reg. U.S. Patent Office

Sold through Hardware Jobbers

WOOD SCREWS



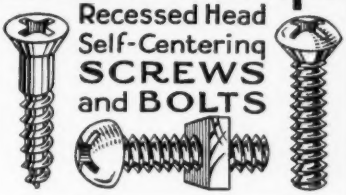
In all Head Styles, Metals and Finishes. Large, complete stock of standard sizes.

THREAD-FORMING SHEET METAL SCREWS

Case Hardened – All Finishes

HOLTITE-Phillips

Recessed Head Self-Centering SCREWS and BOLTS



MACHINE BOLTS

Rolled and Cut Threads with American Square Heads and Nuts. Assembled — in Packages. Unassembled — in Bulk. Large stock standard sizes.

STOVE BOLTS

Large stock, prompt delivery of regular head styles — Flat, Round, Oval, Stove. All sizes.

HANGER BOLTS

Plain or Fluted Centers

Made to order in diameters of ¼", 5/16", ⅜", in lengths up to 6 inches. Regularly supplied with Square Nuts. Hexagon and Wing Nuts can be furnished.

CARRIAGE BOLTS

Rolled or Cut Threads with American Standard Square Nuts. Assembled — in Packages. Unassembled — in Bulk. All types, sizes and metals.

NUTS

Large, complete stock carried for prompt delivery. Furnished in all types and finishes. Accurately cut.

SINK BOLTS

Regularly made in steel, with flat heads. Two square nuts with each bolt. Can be furnished in brass. Strong. Accurate. Complete Stock.

DRIVE SCREWS

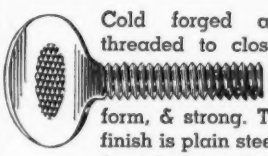
Furnished in Steel, Flat Head with milled or sawed slots. Brass on special order. Round and Oval Head can be furnished. Large stock of popular sizes.

MACHINE SCREWS

STEEL AND BRASS ALL FINISHES

Prompt delivery from complete stock of standard sizes. Specials to order.

THUMB SCREWS



Cold forged and roll threaded to close limits. Accurate, uniform, & strong. The stock finish is plain steel, can be furnished in all finishes.

TUBULAR RIVETS

Steel and Brass. Semi or Full Tubular. All head styles and finishes. These rivets are uniformly true to gauge, with correct setting qualities.

ESCUTCHEON PINS

Complete Stock in Steel and Brass

FINISHING WASHERS

Steel and Brass Countersunk and Brass Flush Finishing Washers. Ebony, Bright Nickel and Gilt Finishes carried in stock.

CONTINENTAL SCREW CO

New Bedford, Mass. . . Warehouses at Detroit & Chattanooga

STEEL WOOD SCREWS—Bright—Blued—Nickeled—Round Head—Flat Head

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on ¾-inch length steel wood screws, No. 2 diameter—find the proper diameter line and follow it along until the 40 per cent column is reached where the correct net price of .23 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per gross** as adopted Nov. 20, 1935.

3/4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
2	.38	.34	.30	.29	.27	.25	.23	.21	.19	.17	.15	.13	.11	.10
3	.40	.36	.32	.30	.28	.26	.24	.22	.20	.18	.16	.14	.12	.10
4	.40	.36	.32	.30	.28	.26	.24	.22	.20	.18	.16	.14	.12	.10
5	.42	.38	.34	.32	.29	.27	.25	.23	.21	.19	.17	.15	.13	.11
6	.46	.41	.37	.35	.32	.30	.28	.25	.23	.21	.18	.16	.14	.12
7	.50	.45	.40	.38	.35	.33	.30	.28	.25	.23	.20	.18	.15	.13
8	.54	.49	.43	.41	.38	.35	.32	.30	.27	.24	.22	.19	.16	.14
9	.58	.52	.46	.44	.41	.38	.35	.32	.29	.26	.23	.20	.17	.15
10	.62	.56	.50	.47	.43	.40	.37	.34	.31	.28	.25	.22	.19	.16
11	.66	.59	.53	.50	.46	.43	.40	.36	.33	.30	.26	.23	.20	.17
12	.70	.63	.56	.53	.49	.46	.42	.39	.35	.32	.28	.25	.21	.18
14	.90	.81	.72	.68	.63	.59	.54	.50	.45	.41	.36	.32	.27	.23

7/8 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
3	.44	.40	.35	.33	.31	.29	.26	.24	.22	.20	.18	.15	.13	.11
4	.46	.41	.37	.35	.32	.30	.28	.25	.23	.21	.18	.16	.14	.12
5	.48	.43	.38	.36	.34	.31	.29	.26	.24	.22	.19	.17	.14	.12
6	.52	.47	.42	.39	.36	.34	.31	.29	.26	.23	.21	.18	.16	.13
7	.56	.50	.45	.42	.39	.36	.34	.31	.28	.25	.22	.20	.17	.14
8	.60	.54	.48	.45	.42	.39	.36	.33	.30	.27	.24	.21	.18	.15
9	.64	.58	.51	.48	.45	.42	.38	.35	.32	.29	.26	.22	.19	.16
10	.68	.61	.54	.51	.48	.44	.41	.37	.34	.31	.27	.24	.20	.17
11	.72	.65	.58	.54	.50	.47	.43	.40	.36	.32	.29	.25	.22	.18
12	.76	.68	.61	.57	.53	.49	.46	.42	.38	.34	.30	.27	.23	.19
14	1.05	.95	.84	.79	.74	.68	.63	.58	.53	.47	.42	.37	.32	.26

1 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	70
3	.46	.41	.37	.35	.32	.30	.28	.25	.23	.21	.18	.16	.14	.12
4	.48	.43	.38	.36	.34	.31	.29	.26	.24	.22	.19	.17	.14	.12
5	.50	.45	.40	.38	.35	.33	.30	.28	.25	.23	.20	.18	.15	.13
6	.54	.49	.43	.41	.38	.35	.32	.30	.27	.24	.22	.19	.16	.14
7	.58	.52	.46	.44	.41	.38	.35	.32	.29	.26	.23	.20	.17	.15
8	.62	.56	.50	.47	.43	.40	.37	.34	.31	.28	.25	.22	.19	.16
9	.66	.59	.53	.50	.46	.43	.40	.36	.33	.30	.26	.23	.20	.17
10	.70	.63	.56	.53	.49	.46	.42	.39	.35	.32	.28	.25	.21	.18
11	.75	.68	.60	.56	.53	.49	.45	.41	.38	.34	.30	.26	.23	.19
12	.80	.72	.64	.60	.56	.52	.48	.44	.40	.36	.32	.28	.24	.20
14	1.10	.99	.88	.83	.77	.72	.66	.61	.55	.50	.44	.39	.33	.28
16	1.40	1.26	1.12	1.05	.98	.91	.84	.77	.70	.63	.56	.49	.42	.35

1-1/4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
4	.52	.47	.42	.39	.36	.34	.31	.29	.26	.23	.21	.18	.16	.13
5	.54	.49	.43	.41	.38	.35	.32	.30	.27	.24	.22	.19	.16	.14
6	.58	.52	.46	.44	.41	.38	.35	.32	.29	.26	.23	.20	.17	.15
7	.62	.56	.50	.47	.43	.40	.37	.34	.31	.28	.25	.22	.19	.16
8	.66	.59	.53	.50	.46	.43	.40	.36	.33	.30	.26	.23	.20	.17
9	.70	.63	.56	.53	.49	.46	.42	.39	.35	.32	.28	.25	.21	.18
10	.76	.68	.61	.57	.53	.49	.46	.42	.38	.34	.30	.27	.23	.19
11	.84	.76	.67	.63	.59	.55	.50	.46	.42	.38	.34	.29	.25	.21
12	.92	.83	.74	.69	.64	.60	.55	.51	.46	.41	.37	.32	.28	.23
14	1.25	1.13	1.00	.94	.88	.81	.75	.69	.63	.56	.50	.44	.38	.31
16	1.55	1.40	1.24	1.16	1.09	1.01	.93	.85	.78	.70	.62	.54	.47	.39
18	1.85	1.67	1.48	1.39	1.30	1.20	1.11	1.02	.93	.83	.74	.65	.56	.46

STEEL WOOD SCREWS—BRIGHT—BLUED—NICKELED—ROUND HEAD—FLAT HEAD

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions. **List prices are per gross** as adopted Nov. 20, 1935.

1-1/2 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
4	.60	.54	.48	.45	.42	.39	.36	.33	.30	.27	.24	.21	.18	.15
5	.62	.56	.50	.47	.43	.40	.37	.34	.31	.28	.25	.22	.19	.16
6	.66	.59	.53	.50	.46	.43	.40	.36	.33	.30	.26	.23	.20	.17
7	.70	.63	.56	.53	.49	.46	.42	.39	.35	.32	.28	.25	.21	.18
8	.75	.68	.60	.56	.53	.49	.45	.41	.38	.34	.30	.26	.23	.19
9	.80	.72	.64	.60	.56	.52	.48	.44	.40	.36	.32	.28	.24	.20
10	.86	.77	.69	.65	.60	.56	.52	.47	.43	.39	.34	.30	.26	.22
11	.95	.86	.76	.71	.67	.62	.57	.52	.48	.43	.38	.33	.29	.24
12	1.05	.95	.84	.79	.74	.68	.63	.58	.53	.47	.42	.37	.32	.26
14	1.35	1.22	1.08	1.01	.95	.88	.81	.74	.68	.61	.54	.47	.41	.34
16	1.70	1.53	1.36	1.28	1.19	1.11	1.02	.94	.85	.77	.68	.60	.51	.43
18	2.05	1.85	1.64	1.54	1.44	1.33	1.23	1.13	1.03	.92	.82	.72	.62	.51
20	2.40	2.16	1.92	1.80	1.68	1.56	1.44	1.32	1.20	1.08	.96	.84	.72	.60

1-3/4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
6	.72	.65	.58	.54	.50	.47	.43	.40	.36	.32	.29	.25	.22	.18
7	.78	.70	.62	.59	.55	.51	.47	.43	.39	.35	.31	.27	.23	.20
8	.84	.76	.67	.63	.59	.55	.50	.46	.42	.38	.34	.29	.25	.21
9	.90	.81	.72	.68	.63	.59	.54	.50	.45	.41	.36	.32	.27	.23
10	.96	.86	.77	.72	.67	.62	.58	.53	.48	.43	.38	.34	.29	.24
11	1.05	.95	.84	.79	.74	.68	.63	.58	.53	.47	.42	.37	.32	.26
12	1.15	1.04	.92	.86	.81	.75	.69	.63	.58	.52	.46	.40	.35	.29
14	1.50	1.35	1.20	1.13	1.05	.98	.90	.83	.75	.68	.60	.53	.45	.38
16	1.90	1.71	1.52	1.43	1.33	1.24	1.14	1.05	.95	.86	.76	.67	.57	.48
18	2.30	2.07	1.84	1.73	1.61	1.50	1.38	1.27	1.15	1.04	.92	.81	.69	.58
20	2.70	2.43	2.16	2.03	1.89	1.76	1.62	1.49	1.35	1.22	1.08	.95	.81	.68

2 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
6	.78	.70	.62	.59	.55	.51	.47	.43	.39	.35	.31	.27	.23	.20
7	.84	.76	.67	.63	.59	.55	.50	.46	.42	.38	.34	.29	.25	.21
8	.90	.81	.72	.68	.63	.59	.54	.50	.45	.41	.36	.32	.27	.23
9	1.00	.90	.80	.75	.70	.65	.60	.55	.50	.45	.40	.35	.30	.25
10	1.10	.99	.88	.83	.77	.72	.66	.61	.55	.50	.44	.39	.33	.28
11	1.20	1.08	.96	.90	.84	.78	.72	.66	.60	.54	.48	.42	.36	.30
12	1.30	1.17	1.04	.98	.91	.85	.78	.72	.65	.59	.52	.46	.39	.33
14	1.60	1.44	1.28	1.20	1.12	1.04	.96	.88	.80	.72	.64	.56	.48	.40
16	2.00	1.80	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.60	.50
18	2.40	2.16	1.92	1.80	1.68	1.56	1.44	1.32	1.20	1.08	.96	.84	.72	.60
20	2.80	2.52	2.24	2.10	1.96	1.82	1.68	1.54	1.40	1.26	1.12	.98	.84	.70

2-1/4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
6	.82	.74	.66	.62	.57	.53	.49	.45	.41	.37	.33	.29	.25	.20
7	.88	.79	.70	.66	.62	.57	.53	.48	.44	.40	.35	.31	.26	.22
8	.95	.86	.76	.71	.67	.62	.57	.52	.48	.43	.38	.33	.29	.24
9	1.05	.95	.84	.79	.74	.68	.63	.58	.53	.47	.42	.37	.32	.26
10	1.15	1.04	.92	.86	.81	.75	.69	.63	.58	.52	.46	.40	.35	.29
11	1.25	1.13	1.00	.94	.88	.81	.75	.69	.63	.56	.50	.44	.38	.31
12	1.35	1.22	1.08	1.01	.95	.88	.81	.74	.68	.61	.54	.47	.41	.34
14	1.75	1.58	1.40	1.31	1.23	1.14	1.05	.96	.88	.79	.70	.61	.53	.44
16	2.20	1.98	1.76	1.65	1.54	1.43	1.32	1.21	1.10	.99	.88	.77	.66	.55
18	2.65	2.39	2.12	1.99	1.86	1.72	1.59	1.46	1.33	1.19	1.06	.93	.80	.66
20	3.10	2.79	2.48	2.33	2.17	2.02	1.86	1.71	1.55	1.40	1.24	1.09	.93	.78

Drive Screws
Wood Screws
Machine Screws
Cap and Set Screws
Stove and Sink Bolts
Gimlet Pointed Sheet Metal Screws
Machine Screw Nuts
Semi Finished Nuts
Tire Bolts
Hand Rail Screws
Thumb Screws
Winged Thumb Nuts
Escutcheon Pins

Single and Double Jack Chain
Safety and Sash Chain
Ladder Chain
Brass Hexagon Cap Screws
Brass Semi Finished Nuts
Brass Hex Acorn Cap Nuts
Brass Stove and Sink Bolts
Brass Washers
Gimlet Pointed Lag Screws

A MARK OF QUALITY

OFFERING a complete line of screws, bolts, chain and machine screw products—ready and waiting for you in our large and well assorted stocks—every screw—every other item maintained at a recognized standard of quality by our system of rigid inspection.

Wherever screws and bolts are needed, whether slotted or Phillips recessed head, Corbin is ready and anxious to serve you.

You can get it from Corbin—and you can depend on Corbin quality.

The Corbin Screw Corporation

The American Hardware Corporation, Successor

New Britain, Conn.

Warehouses: New York, Chicago

STEEL WOOD SCREWS—Bright—Blued—Nickeled—Round Head—Flat Head

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 2½-inch length steel wood screws, No. 6 diameter—find the proper diameter line and follow it along until the 40 per cent column is reached where the correct net price of .54 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per gross** as adopted Nov. 20, 1935.

2-1/2 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
6	.90	.81	.72	.68	.63	.59	.54	.50	.45	.41	.36	.32	.27	.23
7	.96	.86	.77	.72	.67	.62	.58	.52	.48	.43	.38	.34	.29	.24
8	1.05	.95	.84	.79	.74	.68	.63	.58	.53	.47	.42	.37	.32	.26
9	1.15	1.04	.92	.86	.81	.75	.69	.63	.58	.52	.46	.40	.35	.29
10	1.25	1.13	1.00	.94	.88	.81	.75	.69	.63	.56	.50	.44	.38	.31
11	1.35	1.22	1.08	1.01	.95	.88	.81	.74	.68	.61	.54	.47	.41	.34
12	1.50	1.35	1.20	1.13	1.05	.98	.90	.83	.75	.68	.60	.53	.45	.38
14	1.85	1.67	1.48	1.39	1.30	1.20	1.11	1.02	.93	.83	.74	.65	.56	.46
16	2.40	2.16	1.92	1.80	1.68	1.56	1.44	1.32	1.20	1.08	.96	.84	.72	.60
18	3.00	2.70	2.40	2.25	2.10	1.95	1.80	1.65	1.50	1.35	1.20	1.05	.90	.75
20	3.60	3.24	2.88	2.70	2.52	2.34	2.16	1.98	1.80	1.62	1.44	1.26	1.08	.90

2-3/4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
8	1.10	.99	.88	.83	.77	.72	.66	.61	.55	.50	.44	.39	.33	.28
9	1.20	1.08	.96	.90	.84	.78	.72	.66	.60	.54	.48	.42	.36	.30
10	1.32	1.19	1.06	.99	.92	.86	.79	.73	.66	.59	.53	.46	.40	.33
11	1.45	1.31	1.16	1.09	1.02	.94	.87	.80	.73	.65	.58	.51	.44	.36
12	1.65	1.49	1.32	1.24	1.16	1.07	.99	.91	.83	.74	.66	.58	.50	.41
14	2.05	1.85	1.64	1.54	1.44	1.33	1.23	1.13	1.03	.92	.82	.72	.62	.51
16	2.60	2.34	2.08	1.95	1.82	1.69	1.56	1.43	1.30	1.17	1.04	.91	.78	.65
18	3.20	2.88	2.56	2.40	2.24	2.08	1.92	1.76	1.60	1.44	1.28	1.12	.96	.80
20	3.80	3.42	3.04	2.85	2.66	2.47	2.28	2.09	1.90	1.71	1.52	1.33	1.14	.95

3 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
8	1.20	1.08	.96	.90	.84	.78	.72	.66	.60	.54	.48	.42	.36	.30
9	1.30	1.17	1.04	.98	.91	.85	.78	.72	.65	.59	.52	.46	.39	.33
10	1.42	1.28	1.14	1.07	.99	.92	.85	.78	.71	.64	.57	.50	.43	.36
11	1.55	1.40	1.24	1.16	1.09	1.01	.93	.85	.78	.70	.62	.54	.47	.39
12	1.75	1.58	1.40	1.31	1.23	1.14	1.05	.96	.88	.79	.70	.61	.53	.44
14	2.25	2.03	1.80	1.69	1.58	1.46	1.35	1.24	1.13	1.01	.90	.79	.68	.56
16	2.80	2.52	2.24	2.10	1.96	1.82	1.68	1.54	1.40	1.26	1.12	.98	.84	.70
18	3.40	3.06	2.72	2.55	2.38	2.21	2.04	1.87	1.70	1.53	1.36	1.19	1.02	.85
20	4.00	3.60	3.20	3.00	2.80	2.60	2.40	2.20	2.00	1.80	1.60	1.40	1.20	1.00
24	4.95	4.46	3.96	3.71	3.47	3.22	2.97	2.72	2.48	2.23	1.98	1.73	1.49	1.24

3-1/2 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
10	1.90	1.71	1.52	1.43	1.33	1.24	1.14	1.05	.95	.86	.76	.67	.57	.48
11	2.10	1.89	1.68	1.58	1.47	1.37	1.26	1.16	1.05	.95	.84	.74	.63	.53
12	2.30	2.07	1.84	1.73	1.61	1.50	1.38	1.27	1.15	1.04	.92	.81	.69	.58
14	2.80	2.52	2.24	2.10	1.96	1.82	1.68	1.54	1.40	1.26	1.12	.98	.84	.70
16	3.35	3.02	2.68	2.51	2.35	2.18	2.01	1.84	1.68	1.51	1.34	1.17	1.01	.84
18	3.95	3.56	3.16	2.96	2.77	2.57	2.37	2.17	1.98	1.78	1.58	1.38	1.19	.99
20	4.55	4.10	3.64	3.41	3.19	2.96	2.73	2.50	2.28	2.05	1.82	1.59	1.37	1.14
24	5.70	5.13	4.56	4.28	3.99	3.71	3.42	3.14	2.85	2.57	2.28	2.00	1.71	1.43

STEEL WOOD SCREWS—Bright—Blued—Nickeled—Round Head and Flat Head

4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
12	2.50	2.25	2.00	1.88	1.75	1.63	1.50	1.38	1.25	1.13	1.00	.88	.75	.63
14	3.00	2.70	2.40	2.25	2.10	1.95	1.80	1.65	1.50	1.35	1.20	1.05	.90	.75
16	3.55	3.20	2.84	2.66	2.49	2.31	2.13	1.95	1.78	1.60	1.42	1.24	1.07	.89
18	4.20	3.78	3.36	3.15	2.94	2.73	2.52	2.31	2.10	1.89	1.68	1.47	1.26	1.05
20	4.95	4.46	3.96	3.71	3.47	3.22	2.97	2.72	2.48	2.23	1.98	1.73	1.49	1.24
24	6.60	5.94	5.28	4.95	4.62	4.29	3.96	3.63	3.30	2.97	2.64	2.31	1.98	1.65

4-1/2 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
14	3.30	2.97	2.64	2.48	2.31	2.15	1.98	1.82	1.65	1.49	1.32	1.16	.99	.83
16	3.85	3.47	3.08	2.89	2.70	2.50	2.31	2.12	1.93	1.73	1.54	1.35	1.16	.96
18	4.50	4.05	3.60	3.38	3.15	2.93	2.70	2.48	2.25	2.03	1.80	1.58	1.35	1.13
20	5.25	4.73	4.20	3.94	3.68	3.41	3.15	2.89	2.63	2.36	2.10	1.84	1.58	1.31
24	7.10	6.39	5 68	5.33	4.97	4.62	4.26	3.91	3.55	3.20	2.84	2.49	2.13	1.78

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 4 inch length steel wood screws, No. 12 diameter—find the proper diameter line and follow it along until the 40 per cent column is reached where the correct net price of $1.50 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per gross** as adopted Nov. 20, 1935.

5 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
14	3.65	3.29	2.92	2.74	2.56	2.37	2.19	2.01	1.83	1.64	1.46	1.28	1.10	.91
16	4.20	3.78	3.36	3.15	2.94	2.73	2.52	2.31	2.10	1.89	1.68	1.47	1.26	1.05
18	5.00	4.50	4.00	3.75	3.50	3.25	3.00	2.75	2.50	2.25	2.00	1.75	1.50	1.25
20	6.00	5.40	4.80	4.50	4.20	3.90	3.60	3.30	3.00	2.70	2.40	2.10	1.80	1.50
24	7.60	6.84	6.08	5.70	5.32	4.94	4.56	4.18	3.80	3.42	3.04	2.66	2.28	1.90

BRASS WOOD SCREWS—Bright—Round Head—Flat Head

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions. **List prices are per gross** as adopted Nov. 20, 1935.

1/4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
0	.64	.58	.51	.48	.45	.42	.38	.35	.32	.29	.26	.22	.19	.16
1	.66	.59	.53	.50	.46	.43	.40	.36	.33	.30	.26	.23	.20	.17
2	.70	.63	.56	.53	.49	.46	.42	.39	.35	.32	.28	.25	.21	.18
3	.76	.68	.61	.57	.53	.49	.46	.42	.38	.34	.30	.27	.23	.19
4	.86	.77	.69	.65	.60	.56	.52	.47	.43	.39	.34	.30	.26	.22

3/8 INCH LENGTH

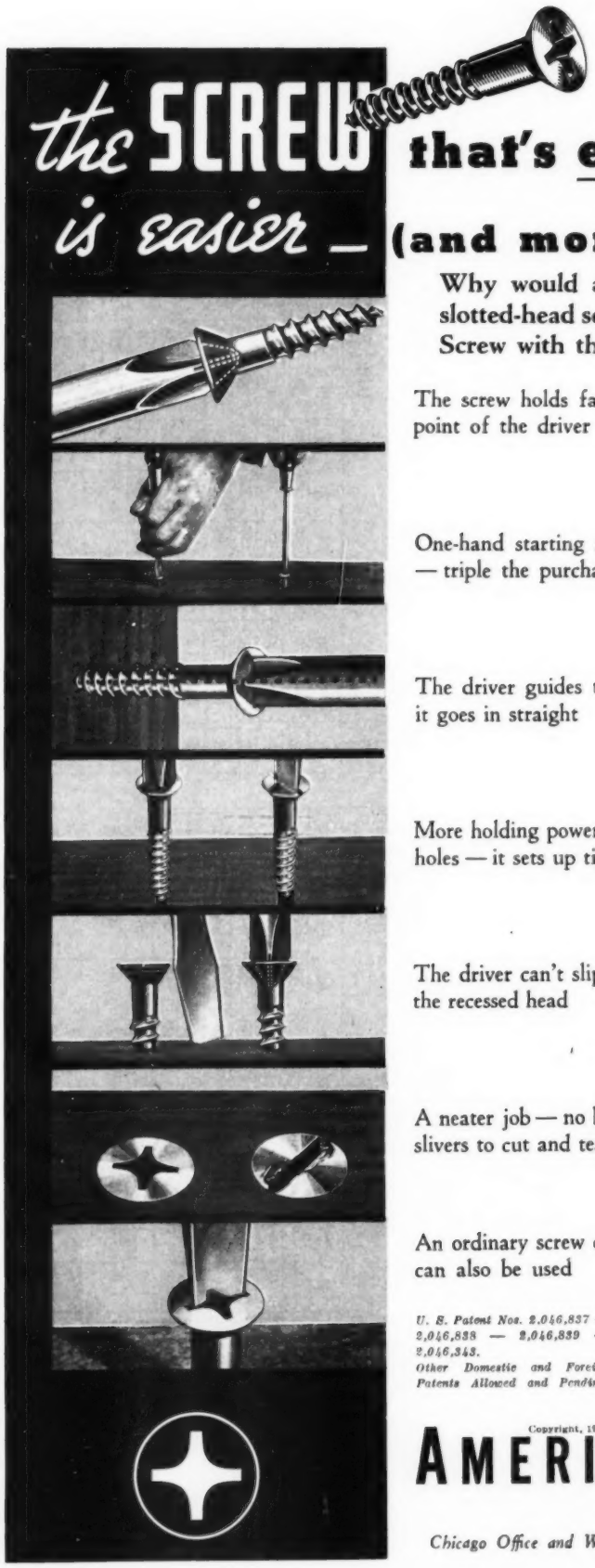
Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
0	.66	.59	.53	.50	.46	.43	.40	.36	.33	.30	.26	.23	.20	.17
1	.70	.63	.56	.53	.49	.46	.42	.39	.35	.32	.28	.25	.21	.18
2	.76	.68	.61	.57	.53	.49	.46	.42	.38	.34	.30	.27	.23	.19
3	.82	.74	.66	.62	.57	.53	.49	.45	.41	.37	.33	.29	.25	.21
4	.90	.81	.72	.68	.63	.59	.54	.50	.45	.41	.36	.32	.27	.23
5	.98	.88	.78	.74	.69	.64	.59	.54	.49	.44	.39	.34	.29	.25
6	1.10	.99	.88	.83	.77	.72	.66	.61	.55	.50	.44	.39	.33	.28

1/2 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
1	.78	.70	.62	.59	.55	.51	.47	.43	.39	.35	.31	.27	.23	.20
2	.84	.76	.67	.63	.59	.55	.50	.46	.42	.38	.34	.29	.25	.21
3	.90	.81	.72	.68	.63	.59	.54	.50	.45	.41	.36	.32	.27	.23
4	.98	.88	.78	.74	.69	.64	.59	.54	.49	.44	.39	.34	.29	.25
5	1.10	.99	.88	.83	.77	.72	.66	.61	.55	.50	.44	.39	.33	.28
6	1.25	1.13	1.00	.94	.88	.81	.75	.69	.63	.56	.50	.44	.38	.31
7	1.45	1.31	1.14	1.09	1.02	.94	.87	.80	.73	.65	.58	.51	.44	.36
8	1.65	1.49	1.32	1.24	1.16	1.07	.99	.91	.83	.74	.66	.58	.50	.41

5/8 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
2	.90	.81	.72	.68	.63	.59	.54	.50	.45	.41	.36	.32	.27	.23
3	1.00	.90	.80	.75	.70	.65	.60	.55	.50	.45	.40	.35	.30	.25
4	1.10	.99	.88	.83	.77	.72	.66	.61	.55	.50	.44	.39	.33	.28
5	1.25	1.13	1.00	.94	.85	.81	.75	.69	.63	.56	.50	.44	.38	.31
6	1.40	1.26	1.12	1.05	.98	.91	.84	.77	.70	.63	.56	.49	.42	.35
7	1.60	1.44	1.28	1.20	1.12	1.04	.96	.88	.80	.72	.64	.56	.48	.40
8	1.80	1.62	1.44	1.35	1.26	1.17	1.08	.99	.90	.81	.72	.63	.54	.45
9	2.05	1.85	1.64	1.54	1.44	1.33	1.23	1.13	1.03	.92	.82	.72	.62	.51
10	2.30	2.07	1.84	1.73	1.61	1.50	1.38	1.27	1.15	1.04	.92	.81	.69	.58



the SCREW that's easier to drive

is easier — (and more profitable) to sell

Why would any customer use an old-fashioned slotted-head screw — after he has tried the Phillips Screw with the patented recessed head?

The screw holds fast to the point of the driver

One-hand starting and driving — triple the purchase

The driver guides the screw — it goes in straight

More holding power — no pilot holes — it sets up tighter

The driver can't slip from the recessed head

A neater job — no burrs or slivers to cut and tear

An ordinary screw driver can also be used

U. S. Patent Nos. 2,046,837 — 2,046,838 — 2,046,839 — 2,046,843. Other Domestic and Foreign Patents Allowed and Pending.

ALL SALES FEATURES that make for EASIER SELLING and BIG REPEATS

Wood Screws • Machine Screws
Stove Bolts • Sheet Metal Screws
with the patented Phillips recessed head

☆ ☆ ☆

Can furnish complete line of Phillips Hand Screw Drivers and Bits for all types of Hand Brace, Spiral and Power Screw Drivers.

Write for more information

Copyright, 1937,

AMERICAN SCREW CO.

PROVIDENCE, R. I.

Chicago Office and Warehouse: 219 WEST RANDOLPH STREET; *Represented on Pacific Coast by* OSGOOD & HOWELL

BRASS WOOD SCREWS—Bright—Round Head—Flat Head

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions. **List prices are per gross** as adopted Nov. 20, 1935.

3/4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
2	1.00	.90	.80	.75	.70	.65	.60	.55	.50	.45	.40	.35	.30	.25
3	1.10	.99	.88	.83	.77	.72	.66	.61	.55	.50	.44	.39	.33	.28
4	1.20	1.08	.96	.90	.84	.78	.72	.66	.60	.54	.48	.42	.36	.30
5	1.35	1.22	1.08	1.01	.95	.88	.81	.74	.68	.61	.54	.47	.41	.34
6	1.50	1.35	1.20	1.13	1.05	.98	.90	.83	.75	.68	.60	.53	.45	.38
7	1.75	1.58	1.40	1.31	1.23	1.14	1.05	.96	.88	.79	.70	.61	.53	.44
8	2.00	1.80	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.60	.50
9	2.25	2.03	1.80	1.69	1.58	1.46	1.35	1.24	1.13	1.01	.90	.79	.68	.56
10	2.50	2.25	2.00	1.88	1.75	1.63	1.50	1.38	1.25	1.13	1.00	.88	.75	.63
11	2.75	2.48	2.20	2.06	1.93	1.79	1.65	1.51	1.38	1.24	1.10	.96	.83	.69
12	3.10	2.79	2.48	2.33	2.17	2.02	1.86	1.71	1.55	1.40	1.24	1.09	.93	.78

7/8 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
4	1.40	1.26	1.12	1.05	.98	.91	.84	.77	.70	.63	.56	.49	.42	.35
5	1.55	1.40	1.24	1.16	1.09	1.01	.93	.85	.78	.70	.62	.54	.47	.39
6	1.75	1.58	1.40	1.31	1.23	1.14	1.05	.96	.88	.79	.70	.61	.53	.44
7	2.00	1.80	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.60	.50
8	2.25	2.03	1.80	1.69	1.58	1.46	1.35	1.24	1.13	1.01	.90	.79	.68	.56
9	2.50	2.25	2.00	1.88	1.75	1.63	1.50	1.38	1.25	1.13	1.00	.88	.75	.63
10	2.75	2.48	2.20	2.06	1.93	1.79	1.65	1.51	1.38	1.24	1.10	.96	.83	.69
11	3.10	2.79	2.48	2.33	2.17	2.02	1.86	1.71	1.55	1.40	1.24	1.09	.93	.78
12	3.45	3.11	2.76	2.59	2.42	2.24	2.07	1.90	1.73	1.55	1.38	1.21	1.04	.86

1 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
4	1.50	1.35	1.20	1.13	1.05	.98	.90	.83	.75	.68	.60	.53	.45	.38
5	1.65	1.49	1.32	1.24	1.16	1.07	.99	.91	.83	.74	.66	.58	.50	.41
6	1.85	1.67	1.48	1.39	1.30	1.20	1.11	1.02	.93	.83	.74	.65	.56	.46
7	2.15	1.94	1.72	1.61	1.51	1.40	1.29	1.18	1.08	.97	.86	.75	.65	.54
8	2.40	2.16	1.92	1.80	1.68	1.56	1.44	1.32	1.20	1.08	.96	.84	.72	.60
9	2.70	2.43	2.16	2.03	1.89	1.76	1.62	1.49	1.35	1.22	1.08	.95	.81	.68
10	3.00	2.70	2.40	2.25	2.10	1.95	1.80	1.65	1.50	1.35	1.20	1.05	.90	.75
11	3.35	3.02	2.68	2.51	2.35	2.18	2.01	1.84	1.68	1.51	1.34	1.17	1.01	.84
12	3.80	3.42	3.04	2.85	2.66	2.47	2.28	2.09	1.90	1.71	1.52	1.33	1.14	.95
14	4.90	4.41	3.92	3.68	3.43	3.19	2.94	2.70	2.45	2.21	1.96	1.72	1.47	1.23

1-1/4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
6	2.20	1.98	1.76	1.65	1.54	1.43	1.32	1.21	1.10	.99	.88	.77	.66	.55
7	2.50	2.25	2.00	1.88	1.75	1.63	1.50	1.38	1.25	1.13	1.00	.88	.75	.63
8	2.80	2.52	2.24	2.10	1.96	1.82	1.68	1.54	1.40	1.26	1.12	.98	.84	.70
9	3.20	2.88	2.56	2.40	2.24	2.08	1.92	1.76	1.60	1.44	1.28	1.12	.96	.80
10	3.60	3.24	2.88	2.70	2.52	2.34	2.16	1.98	1.80	1.62	1.44	1.26	1.08	.90
11	4.00	3.60	3.20	3.00	2.80	2.60	2.40	2.20	2.00	1.80	1.60	1.40	1.20	1.00
12	4.45	4.01	3.56	3.34	3.12	2.89	2.67	2.45	2.23	2.00	1.78	1.56	1.34	1.11
14	5.75	5.18	4.60	4.31	4.03	3.74	3.45	3.16	2.88	2.59	2.30	2.01	1.73	1.44

BRASS WOOD SCREWS—Bright—Round Head—Flat Head

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 1½-inch length, No. 6 diameter—find the proper diameter line and follow it along until the 40 per cent column is reached where the correct net price of $1.47 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per gross** as adopted Nov. 20, 1935.

1-1/2 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
6	2.45	2.21	1.96	1.84	1.72	1.59	1.47	1.35	1.23	1.10	.98	.86	.74	.61
7	2.80	2.52	2.24	2.10	1.96	1.82	1.68	1.54	1.40	1.26	1.12	.98	.84	.70
8	3.20	2.88	2.56	2.40	2.24	2.08	1.92	1.76	1.60	1.44	1.28	1.12	.96	.80
9	3.60	3.24	2.88	2.70	2.52	2.34	2.16	1.98	1.80	1.62	1.44	1.26	1.08	.90
10	4.00	3.60	3.20	3.00	2.80	2.60	2.40	2.20	2.00	1.80	1.60	1.40	1.20	1.00
11	4.55	4.10	3.64	3.41	3.19	2.96	2.73	2.50	2.28	2.05	1.82	1.59	1.37	1.14
12	5.10	4.59	4.08	3.83	3.57	3.32	3.06	2.81	2.55	2.30	2.04	1.79	1.53	1.28
14	6.50	5.85	5.20	4.88	4.55	4.23	3.90	3.58	3.25	2.93	2.60	2.28	1.95	1.63

1-3/4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
8	3.65	3.29	2.92	2.74	2.56	2.37	2.19	2.01	1.83	1.64	1.46	1.28	1.10	.91
9	4.10	3.69	3.28	3.08	2.87	2.67	2.46	2.26	2.05	1.85	1.64	1.44	1.23	1.03
10	4.60	4.14	3.68	3.45	3.22	2.99	2.76	2.53	2.30	2.07	1.84	1.61	1.38	1.15
11	5.20	4.68	4.16	3.90	3.64	3.38	3.12	2.86	2.60	2.34	2.08	1.82	1.56	1.30
12	5.85	5.27	4.68	4.39	4.10	3.80	3.51	3.22	2.93	2.63	2.34	2.05	1.76	1.46
14	7.40	6.66	5.92	5.55	5.18	4.81	4.44	4.07	3.70	3.33	2.96	2.59	2.22	1.85

2 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
8	4.00	3.60	3.20	3.00	2.80	2.60	2.40	2.20	2.00	1.80	1.60	1.40	1.20	1.00
9	4.50	4.05	3.60	3.38	3.15	2.93	2.70	2.48	2.25	2.03	1.80	1.58	1.35	1.13
10	5.10	4.59	4.08	3.83	3.57	3.32	3.06	2.81	2.55	2.30	2.04	1.79	1.53	1.28
11	5.75	5.18	4.60	4.31	4.03	3.74	3.45	3.16	2.88	2.59	2.30	2.01	1.73	1.44
12	6.55	5.90	5.24	4.91	4.59	4.26	3.93	3.60	3.28	2.95	2.62	2.29	1.97	1.64
14	8.15	7.34	6.52	6.11	5.71	5.30	4.89	4.48	4.08	3.67	3.26	2.85	2.45	2.04
16	10.30	9.27	8.24	7.73	7.21	6.70	6.18	5.67	5.15	4.64	4.12	3.61	3.09	2.58
18	12.45	11.21	9.96	9.34	8.72	8.09	7.47	6.85	6.23	5.60	4.98	4.36	3.74	3.11

2-1/4 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
10	5.60	5.04	4.48	4.20	3.92	3.64	3.36	3.08	2.80	2.52	2.24	1.96	1.68	1.40
11	6.35	5.72	5.08	4.76	4.45	4.13	3.81	3.49	3.18	2.86	2.54	2.22	1.91	1.59
12	7.15	6.44	5.72	5.36	5.01	4.65	4.29	3.93	3.58	3.22	2.86	2.50	2.15	1.79
14	9.00	8.10	7.20	6.75	6.30	5.85	5.40	4.95	4.50	4.05	3.60	3.15	2.70	2.25
16	11.35	10.22	9.08	8.51	7.95	7.38	6.81	6.24	5.68	5.11	4.54	3.97	3.41	2.84
18	13.60	12.44	10.88	10.20	9.52	8.84	8.16	7.48	6.80	6.12	5.44	4.76	4.08	3.40

BRASS WOOD SCREWS

Bright—Round and Flat Head

2-1/2 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
10	6.20	5.58	4.96	4.65	4.34	4.03	3.72	3.41	3.10	2.79	2.48	2.17	1.86	1.55
11	7.00	6.30	5.60	5.25	4.90	4.55	4.20	3.85	3.50	3.15	2.80	2.45	2.10	1.75
12	7.80	7.02	6.24	5.85	5.46	5.07	4.68	4.29	3.90	3.51	3.12	2.73	2.34	1.95
14	9.85	8.87	7.88	7.39	6.90	6.40	5.91	5.42	4.93	4.43	3.94	3.45	2.96	2.46
16	12.50	11.25	10.00	9.38	8.75	8.13	7.50	6.88	6.25	5.63	5.00	4.38	3.75	3.13
18	15.10	13.59	12.08	11.33	10.57	9.82	9.06	8.31	7.55	6.80	6.04	5.29	4.53	3.78

3 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	70	75
12	9.15	8.24	7.32	6.86	6.41	5.95	5.49	5.03	4.58	4.12	3.66	3.20	2.75	2.29
14	11.20	10.08	8.96	8.40	7.84	7.28	6.72	6.16	5.60	5.04	4.48	3.92	3.36	2.80
16	14.40	12.96	11.52	10.80	10.08	9.36	8.64	7.92	7.20	6.48	5.76	5.04	4.32	3.60
18	17.65	15.89	14.12	13.14	12.36	11.47	10.59	9.71	8.83	7.94	7.06	6.18	5.30	4.41

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 2½-inch brass wood screws No. 10 diameter—find the proper diameter line and follow it along until the 40 per cent column is reached where the correct net price of $3.72 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per gross** as adopted Nov. 20, 1935.

3-1/2 INCH LENGTH

Diam.	List	DISCOUNTS												
		10	20	25	30	35	40	45	50	55	60	65	75	75
12	11.20	10.08	8.96	8.40	7.84	7.28	6.72	6.16	5.60	5.04	4.48	3.92	3.36	2.80
14	13.25	11.93	10.60	9.94	9.28	8.61	7.95	7.29	6.63	5.96	5.30	4.64	3.98	3.31
16	16.65	14.99	13.32	12.49	11.66	10.82	9.99	9.16	8.33	7.49	6.66	5.83	5.00	4.16
18	20.20	18.18	16.16	15.15	14.14	13.13	12.12	11.11	10.10	9.09	8.08	7.07	6.06	5.05

SHEET METAL SCREWS—TYPE A

Plated Finishes: Nickel, Brass, Copper, Cadmium

List prices are per gross as adopted July 1, 1937

DIAMETER No. 4

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¼	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
⅜	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
½	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
⅝	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
¾	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08

DIAMETER No. 6

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¼	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
⅜	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
½	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
⅝	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
¾	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
⅞	.33	.30	.26	.25	.23	.22	.20	.17	.13	.10	.08
1	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
1¼	.38	.34	.30	.29	.27	.25	.23	.19	.15	.11	.10
1½	.42	.38	.34	.32	.29	.28	.25	.21	.17	.13	.11

DIAMETER No. 7

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅜	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
½	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
⅝	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
¾	.33	.30	.26	.25	.23	.22	.20	.17	.13	.10	.08
⅞	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
1	.36	.32	.29	.27	.25	.24	.22	.18	.14	.11	.09
1¼	.39	.35	.31	.29	.27	.26	.23	.20	.16	.12	.10
1½	.43	.39	.34	.32	.30	.29	.26	.22	.17	.13	.11

DIAMETER No.8

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅜	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
½	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
⅝	.36	.32	.29	.27	.25	.24	.22	.18	.14	.11	.09
¾	.38	.34	.30	.29	.27	.25	.23	.19	.15	.11	.10
⅞	.40	.36	.32	.30	.28	.27	.24	.20	.16	.12	.10
1	.43	.39	.34	.32	.30	.29	.26	.22	.17	.13	.11
1¼	.48	.43	.38	.36	.34	.32	.29	.24	.19	.14	.12
1½	.53	.48	.42	.40	.37	.35	.32	.27	.21	.16	.13

DIAMETER No. 10

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅜	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09
½	.40	.36	.32	.30	.28	.27	.24	.20	.16	.12	.10
⅝	.43	.39	.34	.32	.30	.29	.26	.22	.17	.13	.11
¾	.45	.41	.36	.34	.32	.30	.27	.23	.18	.14	.11
⅞	.48	.43	.38	.36	.34	.32	.29	.24	.19	.14	.12
1	.51	.46	.41	.38	.36	.34	.31	.26	.20	.15	.13
1¼	.58	.52	.46	.44	.41	.39	.35	.29	.23	.17	.15
1½	.64	.58	.51	.48	.45	.43	.38	.32	.26	.19	.16
1¾	.70	.63	.56	.53	.49	.47	.42	.35	.28	.21	.18
2	.71	.64	.57	.53	.50	.47	.43	.36	.28	.21	.18

DIAMETER No. 12

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
½	.45	.41	.36	.34	.32	.30	.27	.23	.18	.14	.11
⅝	.49	.44	.39	.37	.34	.33	.29	.25	.20	.15	.12
¾	.53	.48	.42	.40	.37	.35	.32	.27	.21	.16	.13
⅞	.57	.51	.46	.43	.40	.38	.34	.29	.23	.17	.14
1	.62	.56	.50	.47	.43	.41	.37	.31	.25	.19	.16
1¼	.71	.64	.57	.53	.50	.47	.43	.36	.28	.21	.18
1½	.80	.72	.64	.60	.56	.53	.48	.40	.32	.24	.20

DIAMETER No. 14

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
½	.50	.45	.40	.38	.35	.33	.30	.25	.20	.15	.13
⅝	.55	.50	.44	.41	.39	.37	.33	.28	.22	.17	.14
¾	.60	.54	.48	.45	.42	.40	.36	.30	.24	.18	.15
⅞	.65	.59	.52	.49	.46	.43	.39	.33	.26	.20	.16
1	.70	.63	.56	.53	.49	.47	.42	.35	.28	.21	.18
1¼	.81	.73	.65	.61	.57	.54	.49	.41	.32	.24	.20
1½	.92	.83	.74	.69	.64	.61	.55	.46	.37	.28	.23
1¾	1.04	.94	.83	.78	.73	.69	.62	.52	.42	.31	.26
2	1.15	1.04	.92	.86	.81	.77	.69	.58	.46	.35	.29

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

*HEIZWARE BOLTS & NUTS

*= the standard of dependable hardware

CAP SCREWS • COTTER PINS • SEMI-FINISHED NUTS • STOVE BOLTS • LOCK WASHERS • FLAT WASHERS

NOW packaged in the new incomparable

ALL-METAL HEIZBOX HOPPER-FRONT

[the utility box of a thousand uses]

CELLOPHANE WRAPPED

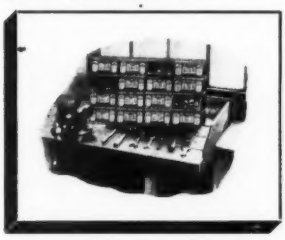
COST YOU NO MORE THAN IN OLD STYLE PAPER CARTONS

EASY ACCESSIBILITY • HANDLING SPEED-UP • SAVES SPACE

STANDARDPAK
[Standard packages of 100 and 1000 pieces of a size]

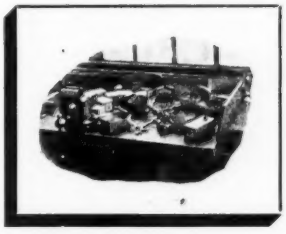
HEIZPAK
[The simplified A-B-C Standard Package]

SEALED LABEL AND WRAPPER INSURES CLEAN SHELF-PACKAGES PLUS FULL-COUNT FACTORY QUANTITIES. LIST PRICE PROMINENTLY DISPLAYED ELIMINATES CATALOG REFERENCE—SPEEDS UP SALES. HOPPER-FRONT PERMITS EASY ACCESSIBILITY IN ANY STACKED COMBINATION.



←≪ THIS

NOT THIS ≫→



INDUCES FULL PACKAGE SALES

At no additional cost to the jobber beyond the established manufacturers' list price and market discount on each item, Heizware bolts and nuts are now being packaged and sold exclusively in the new All-Metal HEIZBOX Hopper-Front.*

** Patent and Trade Mark Applied for.*

The All-Metal HEIZBOX Hopper-Front is exclusively confined to the new STANDARDPAK (standard package stock of 100 and 1000 pieces of a size) and to the modern HEIZPAK (the simplified "A-B-C" standard package).

For your protection, distribution of HEIZWARE products will be confined through the better-class recognized jobber.

You, like others, will agree that the new HEIZWARE line is "miles ahead" of any competitive paper-packaged merchandise on the market today. The opportunity is offered you to be amongst the leaders in your territory to cash in on the incomparable All-Metal HEIZBOX Hopper-Front—at no additional cost to you over the paper carton—we absorb the extra cost.

YOU PAY NO PREMIUM FOR THE ALL-METAL HEIZBOX HOPPER-FRONT

JOBBERS: For your protection and profit send for catalog HA 13

Sell a Merchandised Line—Not a Price Line

HEIZ & HEIZ, INC.

Manufacturers — Established 1922

33–34th STREET, BROOKLYN, N. Y.

SHEET METAL SCREWS—TYPE A

Plain Steel Finish

List prices are per gross as adopted July 1, 1937

DIAMETER No. 4

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¼	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
⅜	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
½	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
⅝	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
¾	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07

DIAMETER No. 6

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¼	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
⅜	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
½	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
⅝	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
¾	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
⅞	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
1	.31	.28	.25	.23	.22	.21	.19	.16	.12	.09	.08
1¼	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
1½	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09

DIAMETER No. 7

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅜	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
½	.28	.25	.22	.21	20	.19	.17	.14	.11	.08	.07
⅝	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
¾	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
⅞	.31	.28	.25	.23	.22	.21	.19	.16	.12	.09	.08
1	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
1¼	.35	.32	.28	.26	.25	.23	.21	.18	.14	.11	.09
1½	.38	.34	.30	.29	.27	.25	.23	.19	.15	.11	.10

DIAMETER No. 8

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅜	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
½	.31	.28	.25	.23	.22	.21	.19	.16	.12	.09	.08
⅝	.33	.30	.26	.25	.23	.22	.20	.17	.13	.10	.08
¾	.35	.32	.28	.26	.25	.23	.21	.18	.14	.11	.09
⅞	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09
1	.39	.35	.31	.29	.27	.26	.23	.20	.16	.12	.10
1¼	.43	.39	.34	.32	.30	.29	.26	.22	.17	.13	.11
1½	.47	.42	.38	.35	.33	.31	.28	.24	.19	.14	.12

DIAMETER No. 10

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅜	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
½	.36	.32	.29	.27	.25	.24	.22	.18	.14	.11	.09
⅝	.38	.34	.30	.29	.27	.25	.23	.19	.15	.11	.10
¾	.40	.36	.32	.30	.28	.27	.24	.20	.16	.12	.10
⅞	.42	.38	.34	.32	.29	.28	.25	.21	.17	.13	.11
1	.44	.40	.35	.33	.31	.29	.26	.22	.18	.13	.11
1¼	.48	.43	.38	.36	.34	.32	.29	.24	.19	.14	.12
1½	.52	.47	.42	.39	.36	.35	.31	.26	.21	.16	.13
1¾	.56	.50	.45	.42	.39	.37	.34	.28	.22	.17	.14
2	.60	.54	.48	.45	.42	.40	.36	.30	.24	.18	.15

DIAMETER No. 12

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
½	.38	.34	.30	.29	.27	.25	.23	.19	.15	.11	.10
⅝	.41	.37	.33	.31	.29	.27	.25	.21	.16	.12	.10
¾	.44	.40	.35	.33	.31	.29	.26	.22	.18	.13	.11
⅞	.47	.42	.38	.35	.33	.31	.28	.24	.19	.14	.12
1	.50	.45	.40	.38	.35	.33	.30	.25	.20	.15	.13
1¼	.56	.50	.45	.42	.39	.37	.34	.28	.22	.17	.14
1½	.62	.56	.50	.47	.43	.41	.37	.31	.25	.19	.16

DIAMETER No. 14

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
½	.42	.38	.34	.32	.29	.28	.25	.21	.17	.13	.11
⅝	.46	.41	.37	.35	.32	.31	.28	.23	.18	.14	.12
¾	.50	.45	.40	.38	.35	.33	.30	.25	.20	.15	.13
⅞	.54	.49	.43	.41	.38	.36	.32	.27	.22	.16	.14
1	.58	.52	.46	.44	.41	.39	.35	.29	.23	.17	.15
1¼	.66	.59	.53	.50	.46	.44	.40	.33	.26	.20	.17
1½	.74	.67	.59	.56	.52	.49	.44	.37	.30	.22	.19
1¾	.82	.74	.66	.62	.57	.55	.49	.41	.33	.25	.21
2	.90	.81	.72	.68	.63	.60	.54	.45	.36	.27	.23

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

PICK ANY ONE . . .

Every Parker-Kalon TYPE "A" Sheet Metal Screw is Good!

Put an imitation alongside a genuine Sheet Metal Screw and you might be fooled into believing the imitation to be "Just as Good." Both have hardened threads. They "look" alike under casual inspection.

However, "Just as Good" is found to end with appearance. Thousands of concerns have found that USE proves the difference between genuine Sheet Metal Screws, made only by Parker-Kalon, and the imitation. It leaves no doubt as to which screw actually saves time and labor . . . which one merely looks as though it will do the work and cut costs.

Genuine Sheet Metal Screws effect savings and make better fastenings, not because of their "looks" or hardened threads, but because of the way they are made and what they are made of. They always go in easily and quickly . . . always form a perfect, strong-holding thread . . . always draw up tight without breaking. It is that perfect action which gives uniformly satisfactory results and cuts costs.

How to tell Genuine Sheet Metal Screws

MADE BY PARKER-KALON, originators of the Sheet Metal Screw and possessors of unique equipment, specially developed to make these Screws.

THEY HOLD . . . because the threads run full diameter right up to the head. THEY GO IN EASILY . . . because the threads are (1) designed with an expert knowledge of the work they must perform (2) held to a high degree of accuracy and uniformity. THREADS DON'T STRIP . . . HEADS DON'T TWIST OFF . . . because they are made from high grade steel wire of special analysis and are scientifically hardened by a process developed from over 20 years' experience in the manufacture of Self-tapping Screws.

PARKER-KALON CORP.
200 Varick Street, New York, N.Y.

PARKER-KALON
HARDENED TYPE A SELF-TAPPING
Sheet Metal Screws

Sold only through Recognized Distributors

SHEET METAL SCREWS—TYPE Z

Plated Finishes: Nickel, Brass, Copper, Cadmium

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on No. 2 diameter sheet metal screws 1/8 in. long—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of .14 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per gross** as adopted Oct. 1, 1937.

DIAMETER No. 2

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅛	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
3/16	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
¼	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
5/16	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
⅜	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06

DIAMETER No. 4

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3/16	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
¼	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
5/16	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
⅜	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
½	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
⅝	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
¾	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08

DIAMETER No. 6

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3/16	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
¼	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
5/16	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
⅜	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
½	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
⅝	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
¾	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
⅞	.33	.30	.26	.25	.23	.22	.20	.17	.13	.10	.08
1	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09

DIAMETER No. 7

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¼	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
5/16	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
⅜	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
½	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
⅝	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
¾	.33	.30	.26	.25	.23	.22	.20	.17	.13	.10	.08
⅞	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
1	.36	.32	.29	.27	.25	.24	.22	.18	.14	.11	.09

DIAMETER No. 8

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¼	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
5/16	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
⅜	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
½	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
⅝	.36	.32	.29	.27	.25	.24	.22	.18	.14	.11	.09
¾	.38	.34	.30	.29	.27	.25	.23	.19	.15	.11	.10
⅞	.40	.36	.32	.30	.28	.27	.24	.20	.16	.12	.10
1	.43	.39	.34	.32	.30	.29	.26	.22	.17	.13	.11
1¼	.48	.43	.38	.36	.34	.32	.29	.24	.19	.14	.12
1½	.53	.48	.42	.40	.37	.35	.32	.27	.21	.16	.13

DIAMETER No. 10

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¼	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09
5/16	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09
⅜	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09
½	.40	.36	.32	.30	.28	.27	.24	.20	.16	.12	.10
⅝	.43	.39	.34	.32	.30	.29	.26	.22	.17	.13	.11
¾	.45	.41	.36	.34	.32	.30	.27	.23	.18	.14	.11
⅞	.48	.43	.38	.36	.34	.32	.29	.24	.19	.14	.12
1	.51	.46	.41	.38	.36	.34	.31	.26	.20	.15	.13
1¼	.58	.52	.46	.44	.41	.39	.35	.28	.23	.17	.15
1½	.64	.58	.51	.48	.45	.43	.38	.32	.26	.19	.16
1¾	.70	.63	.56	.53	.49	.47	.42	.35	.28	.21	.18
2	.77	.69	.62	.58	.54	.51	.46	.39	.31	.23	.19

Type Z charts concluded on page 69.

QUICK FACTS
about PARKER-KALON SHEET METAL SCREWS

TYPE A TYPE Z

To thousands of sheet metal workers, TYPE "A" *Parker-Kalon Hardened Self-tapping Sheet Metal Screws* are known as the easiest, quickest, cheapest means of assembling sheet metal. They are the original sheet metal screws, and the consistently perfect results they give accounts for the fact that they are so generally demanded. More about their superiority is told in another Parker-Kalon advertisement in this handbook.

ADVANTAGES AND USES FOR TYPE "A" SCREWS: Wherever sheet metal up to 18 gauge (.050″) must be assembled these unique Screws are employed by tinsmiths, furnacemen, auto repairmen, sign makers and other sheet metal workers.

Large savings of time and labor are bound to result from using these Screws. They eliminate tapping and unhandy riveting and bolting operations. To use them it is only necessary to drill, punch or pierce holes of correct size and turn in the Screws . . . they form a thread in the metal as they go in, and *hold better than machine screws in tapped holes or bolts and nuts.*

Type "A" Screws are stocked in a wide range of sizes, with round, binding, stove, countersunk flat and countersunk oval heads; in plain steel and various plated finishes. Packed in boxes of 1 gross or 1000 of a size. Details on request.

TYPE "Z"

TYPE "Z" *Parker-Kalon Hardened Self-tapping Sheet Metal Screws* are for joining and making fastenings to sheet metal from 28 gauge (.015″) up to 6 gauge (.203″); also for making fastenings to aluminum and die castings, Bakelite and other plastics, etc.

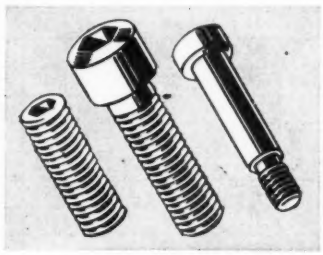
Thousands of manufacturers in every branch of the metal working industry employ these Screws to make better fastenings at lower cost. Mechanics such as radio and auto repairmen also use them extensively to avoid costly and difficult tapping, and awkward, time-consuming riveting and bolting.

Like the other types of Parker-Kalon Self-tapping Screws, the TYPE "Z" Screws form their own thread as they are turned into holes which have been drilled or molded in the material . . . *hold better than machine screws and bolts and nuts.*

Type "Z" Screws are stocked in sizes for every need, in plain steel and various plated finishes, and with the following head styles: round, binding, countersunk flat and oval, stove and hexagon. Packed in boxes of 1 gross and 1000 of a size.

PARKER-KALON PRODUCTS ARE SOLD ONLY THROUGH RECOGNIZED JOBBERS

PARKER-KALON CORPORATION
200 Varick Street New York, N. Y.



BETTER

THAN THEY NEED BE

The result of Parker-Kalon's two years of research and development to produce Socket Set Screws, Socket Head Cap Screws and Socket Head Stripper Bolts of outstanding excellence. Send for illustrated bulletin. Get samples . . . judge these new Screws by any standard. You'll agree they are "better than they need be."

PARKER-KALON
Cold-forged
SOCKET SCREWS

They're Cold-forged!

NEATER . . . STRONGER . . . COST NO MORE

Parker-Kalon's Cold-forging process makes Wing Nuts, Cap Nuts and Thumb Screws far superior. They are stronger . . . more accurate and uniform . . . more pleasing in design. Superior in finish, too. No burrs, roughness or other imperfections. Yet, they generally cost no more. A full range of sizes and finishes are available.

PARKER-KALON
Cold-forged
WING NUTS—CAP NUTS
THUMB SCREWS

SHEET METAL SCREWS—TYPE Z

Plain Steel Finish

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on No. 6 diameter sheet metal screws $\frac{3}{16}$ in. long—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of .15 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per gross** as adopted Oct. 1, 1937.

DIAMETER No. 6

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3/16	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
¼	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
5/16	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
⅜	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
½	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
⅝	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
¾	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
⅞	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
1	.31	.28	.25	.23	.22	.21	.19	.16	.12	.09	.08

DIAMETER No. 7

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¼	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
5/16	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
⅜	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
½	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
⅝	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
¾	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
⅞	.31	.28	.25	.23	.22	.21	.19	.16	.12	.09	.08
1	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08

DIAMETER No. 8

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¼	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
5/16	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
⅜	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
½	.31	.28	.25	.23	.22	.21	.19	.16	.12	.09	.08
⅝	.33	.30	.26	.25	.23	.22	.20	.17	.13	.10	.08
¾	.35	.32	.28	.26	.25	.23	.21	.18	.14	.11	.09
⅞	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09
1	.39	.35	.31	.29	.27	.26	.23	.20	.16	.12	.10
1¼	.43	.39	.34	.32	.30	.29	.26	.22	.17	.13	.11
1½	.47	.42	.38	.35	.33	.31	.28	.24	.19	.14	.12

DIAMETER No. 10

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¼	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
5/16	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
⅜	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
½	.36	.32	.29	.27	.25	.24	.22	.18	.14	.11	.09
⅝	.38	.34	.30	.29	.27	.25	.23	.19	.15	.11	.10
¾	.40	.36	.32	.30	.28	.27	.24	.20	.16	.12	.10
⅞	.42	.38	.34	.32	.29	.28	.25	.21	.17	.13	.11
1	.44	.40	.35	.33	.31	.29	.26	.22	.18	.13	.11
1¼	.48	.43	.38	.36	.34	.32	.29	.24	.19	.14	.12
1½	.52	.47	.42	.39	.36	.35	.31	.26	.21	.16	.13
1¾	.56	.50	.45	.42	.39	.37	.34	.28	.22	.17	.14
2	.60	.54	.48	.45	.42	.40	.36	.30	.24	.18	.15

DIAMETER No. 12

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅜	.38	.34	.30	.29	.27	.25	.23	.19	.15	.11	.10
½	.38	.34	.30	.29	.27	.25	.23	.19	.15	.11	.10
⅝	.41	.37	.33	.31	.29	.27	.25	.21	.16	.12	.10
¾	.44	.40	.35	.33	.31	.29	.26	.22	.18	.13	.11
⅞	.47	.42	.38	.35	.33	.31	.28	.24	.19	.14	.12
1	.50	.45	.40	.38	.35	.33	.30	.25	.20	.15	.13

DIAMETER No. 14

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅜	.42	.38	.34	.32	.29	.28	.25	.21	.17	.13	.11
½	.42	.38	.34	.32	.29	.28	.25	.21	.17	.13	.11
⅝	.46	.41	.37	.35	.32	.31	.28	.23	.18	.14	.12
¾	.50	.45	.40	.38	.35	.33	.30	.25	.20	.15	.13
⅞	.54	.49	.43	.41	.38	.36	.32	.27	.22	.16	.14
1	.58	.52	.46	.44	.41	.39	.35	.29	.23	.17	.15
1¼	.66	.59	.52	.50	.46	.44	.40	.33	.26	.20	.17
1½	.74	.67	.59	.56	.52	.49	.44	.37	.30	.22	.19
1¾	.82	.74	.66	.62	.57	.55	.49	.41	.33	.25	.21
2	.90	.81	.72	.68	.63	.60	.54	.45	.36	.27	.23

Other Type Z charts on page 69.

SHEET METAL SCREWS —TYPE Z

Plated Finishes: Nickel, Brass, Copper, Cadmium

DIAMETER No. 12

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅜	.45	.41	.36	.34	.32	.30	.27	.23	.18	.14	.11
½	.45	.41	.36	.34	.32	.30	.27	.23	.18	.14	.11
⅝	.49	.44	.39	.37	.34	.33	.29	.25	.20	.15	.12
¾	.53	.48	.42	.40	.37	.35	.32	.27	.21	.16	.13
⅞	.57	.51	.46	.43	.40	.38	.34	.29	.23	.17	.14
1	.62	.56	.50	.47	.43	.41	.37	.31	.25	.19	.16

DIAMETER No. 14

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅜	.50	.45	.40	.38	.35	.33	.30	.25	.20	.15	.13
½	.50	.45	.40	.38	.35	.33	.30	.25	.20	.15	.13
⅝	.55	.50	.44	.41	.39	.37	.33	.28	.22	.17	.14
¾	.60	.54	.48	.45	.42	.40	.36	.30	.24	.18	.15
⅞	.65	.59	.52	.49	.46	.43	.39	.33	.26	.20	.16
1	.70	.63	.56	.53	.49	.47	.42	.35	.28	.21	.18
1¼	.81	.73	.65	.61	.57	.54	.49	.41	.32	.24	.20
1½	.92	.83	.74	.69	.64	.61	.55	.46	.37	.28	.23
1¾	1.04	.94	.83	.78	.73	.69	.62	.52	.42	.31	.26
2	1.15	1.04	.92	.86	.81	.77	.69	.58	.46	.35	.29

Plain Steel Finish

DIAMETER No. 2

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
⅛	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
3/16	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
¼	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
5/16	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
⅜	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06

DIAMETER No. 4

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3/16	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
¼	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
5/16	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
⅜	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
½	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
⅝	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
¾	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07

COLD FORGED WING NUTS

Brass and Steel

MACHINE SCREW THREAD SIZES
American—National Standard

Machine Screw Size	No. of Threads	Blank Size	Wing Spread	Unit Packing	Approximate Weight Per 100	
					Steel, Lbs.	Brass, Lbs.
No. 4	40	AA	21/32"	100	⅜	½
No. 6	32	AA	21/32"	100	⅜	½
No.5(⅛")	40	A	13/16"	100	¾	⅞
No. 6	32	A	13/16"	100	¾	⅞
No. 8	32	A	13/16"	100	¾	⅞
No. 10	24	A	13/16"	100	¾	⅞
No. 10	32	A	13/16"	100	¾	⅞
No. 12	24	B	1 1/16"	100	1⅛	1⅓
¼"	20	B	1 1/16"	100	1⅛	1⅓
5/16"	18	C	1 7/32"	100	2¼	2⅝
⅜"	16	D	1⅜"	100	3⅖	4
7/16"	14	E	1⅞"	50	9	10⅕
½"	13	E	1⅞"	50	8¾	9⅜
⅝"	11	F	2⅜"	25	23½	26
¾"	10	F	2⅜"	25	21½	24

MACHINE SCREW THREAD SIZES
S.A.E. Standard

Machine Screw Size	No. of Threads	Blank Size	Wing Spread	Unit Packing	Approximate Weight Per 100	
					Steel, Lbs.	Brass, Lbs.
¼"	28	B	1 1/16"	100	1⅛	1⅓
5/16"	24	C	1 7/32"	100	2¼	2⅝
⅜"	24	D	1⅜"	100	3⅖	4
7/16"	20	E	1⅞"	50	9	10⅕
½"	20	E	1⅞"	50	8¾	9⅜

STOVE BOLT THREAD SIZES

Stove Bolt Size	No. of Threads	Blank Size	Wing Spread	Unit Packing	Approximate Weight Per 100	
					Steel, Lbs.	Brass, Lbs.
3/16"	24	A	13/16"	100	¾	⅞
¼"	20	B	1 1/16"	100	1⅛	1⅓
¼"	18	B	1 1/16"	100	1⅛	1⅓
5/16"	18	C	1 7/32"	100	2¼	2⅝
⅜"	16	D	1⅜"	100	3⅖	4

THREAD MICROMETER READING OF U. S. S. FORM THREAD

FOR VARIOUS PITCH DIAMETER OF SCREWS

Table No. 1—Sizes 1/8 to 1/2 inch.

Threads per Inch	1/8	3/16	1/4	5/16	3/8	7/16	1/2
50	.1120	.1745	.2370	.2995	.3620	.4245	.4870
48	.1115	.1740	.2365	.2990	.3615	.4240	.4865
46	.1109	.1734	.2359	.2984	.3609	.4234	.4859
44	.1102	.1727	.2352	.2977	.3602	.4227	.4852
42	.1095	.1720	.2345	.2970	.3595	.4220	.4845
40	.1088	.1713	.2338	.2963	.3588	.4213	.4838
38	.1079	.1704	.2329	.2954	.3579	.4204	.4829
36	.1070	.1695	.2320	.2945	.3570	.4195	.4820
34	.1059	.1684	.2309	.2934	.3559	.4184	.4809
32	.1047	.1672	.2297	.2922	.3547	.4172	.4797
30	.1033	.1658	.2283	.2908	.3533	.4158	.4783
28	.1018	.1643	.2268	.2893	.3518	.4143	.4768
27	.1009	.1634	.2259	.2884	.3509	.4134	.4759
26	.1000	.1625	.2250	.2875	.3500	.4125	.4750
24	.0979	.1604	.2229	.2854	.3479	.4104	.4729
22	.0955	.1580	.2205	.2830	.3455	.4080	.4705
20	.0926	.1551	.2176	.2801	.3426	.4051	.4676
18	.0890	.1515	.2140	.2765	.3390	.4015	.4640
16	.0844	.1469	.2094	.2719	.3344	.3969	.4594
14	.0786	.1411	.2036	.2661	.3286	.3911	.4536
13	.0751	.1376	.2001	.2626	.3251	.3876	.4501
12	.0709	.1334	.1959	.2584	.3209	.3834	.4459
11	.0660	.1285	.1910	.2535	.3160	.3785	.4410
10	.0601	.1226	.1851	.2476	.3101	.3726	.4351
9	.0529	.1154	.1779	.2404	.3029	.3654	.4279
8	.0438	.1063	.1688	.2313	.2938	.3563	.4188
7	.0322	.0947	.1572	.2197	.2822	.3447	.4072
6	.0168	.0793	.1418	.2043	.2668	.3293	.3918

Table No. 2—Sizes 9/16 to 1 inch

Threads per Inch	9/16	5/8	11/16	3/4	7/8	15/16	1
50	.5495	.6120	.6745	.7370	8620	.9245	.9870
48	.5490	.6115	.6740	.7365	.8615	.9240	.9865
46	.5484	.6109	.6734	.7359	.8609	.9234	.9859
44	.5477	.6102	.6727	.7352	.8602	.9227	.9852
42	.5470	.6095	.6720	.7345	.8595	.9220	.9845
40	.5463	.6088	.6713	.7338	.8588	.9213	.9838
38	.5454	.6079	.6704	.7329	.8579	.9204	.9829
36	.5445	.6070	.6695	.7320	.8570	.9195	.9820
34	.5434	.6059	.6684	.7309	.8559	.9184	.9809
32	.5422	.6047	.6672	.7297	.8547	.9172	.9797
30	.5408	.6033	.6658	.7283	.8533	.9158	.9783
28	.5393	.6018	.6643	.7268	.8518	.9143	.9768
27	.5384	.6009	.6634	.7259	.8509	.9134	.9759
26	.5375	.6000	.6625	.7250	.8500	.9125	.9750
24	.5354	.5979	.6604	.7229	.8479	.9104	.9729
22	.5330	.5955	.6580	.7205	.8455	.9080	.9705
20	.5301	.5926	.6551	.7176	.8426	.9051	.9676
18	.5265	.5890	.6515	.7140	.8390	.9015	.9640
16	.5219	.5844	.6469	.7094	.8344	.8969	.9594
14	.5161	.5786	.6411	.7036	.8286	.8911	.9536
13	.5126	.5751	.6376	.7001	.8251	.8876	.9501
12	.5084	.5709	.6334	.6959	.8209	.8834	.9459
11	.5035	.5660	.6285	.6910	.8160	.8785	.9410
10	.4976	.5601	.6226	.6851	.8101	.8726	.9351
9	.4904	.5529	.6154	.6779	.8029	.8654	.9279
8	.4813	.5438	.6063	.6688	.7938	.8563	.9188
7	.4697	.5322	.5947	.6572	.7822	.8447	.9072
6	.4543	.5168	.5793	.6418	.7668	.8293	.8918

When the outside diameter and the number of threads per inch are known, the pitch diameter is found in the tables above Decimals only are given so that whatever the whole number is that precedes the fraction at the head of the columns, giving the outside diameter, if the same number is placed before the decimal, the correct pitch diameter is obtained.

HEXAGON HEAD CAP SCREWS—Milled or Upset
These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. Formulas, d

HEXAGON HEAD CAP SCREWS—Milled or Upset

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 3/8-inch diameter hexagon head cap screws, 2 inches in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of $1.98 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Aug. 1, 1936.

1/4 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
½	1.30	1.17	1.04	.98	.87	.78	.65	.59	.52	.46	.39	.33
⅝	1.35	1.22	1.08	1.01	.90	.81	.68	.61	.54	.47	.41	.34
¾	1.40	1.26	1.12	1.05	.93	.84	.70	.63	.56	.49	.42	.35
⅞	1.50	1.35	1.20	1.13	1.00	.90	.75	68	.60	.53	.45	.38
1	1.60	1.44	1.28	1.20	1.07	.96	.80	.72	.64	.56	.48	.40
1¼	1.80	1.62	1.44	1.35	1.20	1.08	.90	.81	.72	.63	.54	.45
1½	2.00	1.80	1.60	1.50	1.33	1.20	1.00	.90	.80	.70	.60	.50
1¾	2.20	1.98	1.76	1.65	1.47	1.32	1.10	.99	.88	.77	.66	.55
2	2.40	2.16	1.92	1.80	1.60	1.44	1.20	1.08	.96	.84	.72	.60
2¼	2.60	2.34	2.08	1.95	1.73	1.56	1.30	1.17	1.04	.91	.78	.65
2½	2.80	2.52	2.24	2.10	1.87	1.68	1.40	1.26	1.12	.98	.84	.70
2¾	3.00	2.70	2.40	2.25	2.00	1.80	1.50	1.35	1.20	1.05	.90	.75
3	3.30	2.97	2.64	2.48	2.20	1.98	1.65	1.49	1.32	1.16	.99	.83
3¼	4.00	3.60	3.20	3.00	2.67	2.40	2.00	1.80	1.60	1.40	1.20	1.00
3½	4.70	4.23	3.76	3.53	3.13	2.82	2.35	2.12	1.88	1.65	1.41	1.18

3/8 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
½	1.90	1.71	1.52	1.43	1.27	1.14	.95	.86	.76	.67	.57	.48
⅝	2.00	1.80	1.60	1.50	1.33	1.20	1.00	.90	.80	.70	.60	.50
¾	2.10	1.89	1.68	1.58	1.40	1.26	1.05	.95	.84	.74	.63	.53
⅞	2.20	1.98	1.76	1.65	1.47	1.32	1.10	.99	.88	.77	.66	.55
1	2.30	2.07	1.84	1.73	1.53	1.38	1.15	1.04	.92	.81	.69	.58
1¼	2.50	2.25	2.00	1.88	1.67	1.50	1.25	1.13	1.00	.88	.75	.63
1½	2.70	2.43	2.16	2.03	1.80	1.62	1.35	1.22	1.08	.95	.81	.68
1¾	3.00	2.70	2.40	2.25	2.00	1.80	1.50	1.35	1.20	1.05	.90	.75
2	3.30	2.97	2.64	2.48	2.20	1.98	1.65	1.49	1.32	1.16	.99	.83
2¼	3.60	3.24	2.88	2.70	2.40	2.16	1.80	1.62	1.44	1.26	1.08	.90
2½	3.90	3.51	3.12	2.93	2.60	2.34	1.95	1.76	1.56	1.37	1.17	.98
2¾	4.30	3.87	3.44	3.23	2.87	2.58	2.15	1.94	1.72	1.51	1.29	1.08
3	4.70	4.23	3.76	3.53	3.13	2.82	2.35	2.12	1.88	1.65	1.41	1.18
3¼	5.30	4.77	4.24	3.98	3.53	3.18	2.65	2.39	2.12	1.86	1.59	1.33
3½	5.90	5.31	4.72	4.43	3.93	3.54	2.85	2.66	2.36	2.07	1.77	1.48
3¾	6.80	6.12	5.44	5.10	4.54	4.08	3.40	3.06	2.72	2.38	2.04	1.70
4	7.70	6.93	6.16	5.78	5.13	4.62	3.85	3.47	3.08	2.70	2.31	1.93

5/16 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
½	1.50	1.35	1.20	1.13	1.00	.90	.75	.68	.60	.53	.45	.38
⅝	1.60	1.44	1.28	1.20	1.07	.96	.80	.72	.64	.56	.48	.40
¾	1.70	1.53	1.36	1.28	1.13	1.02	.85	.77	.68	.60	.51	.43
⅞	1.80	1.62	1.44	1.35	1.20	1.08	.90	.81	.72	.63	.54	.45
1	1.90	1.71	1.52	1.43	1.27	1.14	.95	.86	.76	.67	.57	.48
1¼	2.10	1.89	1.68	1.58	1.40	1.26	1.05	.95	.84	.74	.63	.53
1½	2.30	2.07	1.84	1.73	1.53	1.38	1.15	1.04	.92	.81	.69	.58
1¾	2.50	2.25	2.00	1.88	1.67	1.50	1.25	1.13	1.00	.88	.75	.63
2	2.70	2.43	2.16	2.03	1.80	1.62	1.35	1.22	1.08	.95	.81	.68
2¼	2.90	2.61	2.32	2.18	1.93	1.74	1.45	1.31	1.16	1.02	.87	.73
2½	3.20	2.88	2.56	2.40	2.13	1.92	1.60	1.44	1.28	1.12	.96	.80
2¾	3.50	3.15	2.80	2.63	2.33	2.10	1.75	1.58	1.40	1.23	1.05	.88
3	3.80	3.42	3.04	2.85	2.53	2.28	1.90	1.71	1.52	1.33	1.14	.95
3¼	4.60	4.14	3.68	3.45	3.07	2.76	2.30	2.07	1.84	1.61	1.38	1.15
3½	5.40	4.86	4.32	4.05	3.60	3.24	2.70	2.43	2.16	1.89	1.62	1.35

7/16 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	3.00	2.70	2.40	2.25	2.00	1.80	1.50	1.35	1.20	1.05	.90	.75
⅞	3.10	2.79	2.48	2.33	2.07	1.86	1.55	1.40	1.24	1.09	.93	.78
1	3.20	2.88	2.56	2.40	2.13	1.92	1.60	1.44	1.28	1.12	.96	.80
1¼	3.50	3.15	2.80	2.63	2.33	2.10	1.75	1.58	1.40	1.23	1.05	.88
1½	3.80	3.42	3.04	2.85	2.53	2.28	1.90	1.71	1.52	1.33	1.14	.95
1¾	4.10	3.69	3.28	3.08	2.73	2.46	2.05	1.85	1.64	1.44	1.23	1.03
2	4.50	4.05	3.60	3.38	3.00	2.70	2.25	2.03	1.80	1.58	1.35	1.13
2¼	4.90	4.41	3.92	3.68	3.27	2.94	2.45	2.21	1.96	1.72	1.47	1.23
2½	5.30	4.77	4.24	3.98	3.53	3.18	2.65	2.39	2.12	1.86	1.59	1.33
2¾	5.70	5.13	4.56	4.28	3.80	3.42	2.85	2.57	2.28	2.00	1.71	1.43
3	6.20	5.58	4.96	4.65	4.13	3.72	3.10	2.79	2.48	2.17	1.86	1.55
3¼	6.70	6.03	5.36	5.03	4.47	4.02	3.35	3.02	2.68	2.35	2.01	1.68
3½	7.20	6.48	5.76	5.40	4.80	4.32	3.60	3.24	2.88	2.52	2.16	1.80
3¾	7.90	7.11	6.32	5.93	5.27	4.74	3.95	3.56	3.16	2.77	2.37	1.98
4	8.60	7.74	6.88	6.45	5.73	5.16	4.30	3.87	3.44	3.01	2.58	2.15

HEXAGON HEAD CAP SCREWS—Milled or Upset

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions. **List prices are per 100** as adopted Aug. 1, 1936.

1/2 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	4.70	4.23	3.76	3.53	3.13	2.82	2.35	2.12	1.88	1.65	1.41	1.18
⅞	4.90	4.41	3.92	3.68	3.27	2.94	2.45	2.21	1.96	1.72	1.47	1.23
1	5.10	4.59	4.08	3.83	3.40	3.06	2.55	2.30	2.04	1.79	1.53	1.28
1¼	5.50	4.95	4.40	4.13	3.67	3.30	2.75	2.48	2.20	1.93	1.65	1.38
1½	5.90	5.31	4.72	4.43	3.93	3.54	2.95	2.66	2.36	2.07	1.77	1.48
1¾	6.30	5.67	5.04	4.73	4.20	3.78	3.15	2.84	2.52	2.21	1.89	1.58
2	6.70	6.03	5.36	5.03	4.47	4.02	3.35	3.02	2.68	2.35	2.01	1.68
2¼	7.20	6.48	5.76	5.40	4.80	4.32	3.60	3.24	2.88	2.52	2.16	1.80
2½	7.70	6.93	6.16	5.78	5.13	4.62	3.85	3.47	3.08	2.70	2.31	1.93
2¾	8.20	7.38	6.56	6.15	5.47	4.92	4.10	3.69	3.28	2.87	2.46	2.05
3	8.70	7.83	6.96	6.53	5.80	5.22	4.35	3.92	3.48	3.05	2.61	2.18
3¼	9.20	8.28	7.36	6.90	6.13	5.52	4.60	4.14	3.68	3 22	2.76	2.30
3½	9.80	8.82	7.84	7.35	6.53	5.88	4.90	4.41	3.92	3.43	2.94	2.45
3¾	10.40	9.36	8.32	7.80	6.93	6.24	5.20	4.68	4.16	3.64	3.12	2.60
4	11.00	9.90	8.80	8.25	7.33	6.60	5.50	4.95	4.40	3.85	3.30	2.75
4½	13.40	12.06	10.72	10.05	8.93	8.04	6.70	6.03	5.36	4.69	4.02	3.35

5/8 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1	8.60	7.74	6.88	6.45	5.73	5.16	4.30	3.87	3.44	3.01	2.58	2.15
1¼	9.20	8.28	7.36	6.90	6.13	5.52	4.60	4.14	3.68	3.22	2.76	2.30
1½	9.80	8.82	7.84	7.35	6.53	5.88	4.90	4.41	3.92	3.43	2.94	2.45
1¾	10.40	9.36	8.32	7.80	6.92	6.24	5.20	4.68	4.16	3.64	3.12	2.60
2	11.00	9.90	8.80	8.25	7.33	6.60	5.50	4.95	4.40	3.85	3.30	2.75
2¼	11.60	10.44	9.28	8.70	7.73	6.96	5.80	5.22	4.64	4.06	3.48	2.90
2½	12.20	10.98	9.76	9.15	8.13	7.32	6.10	5.49	4.88	4.27	3.66	3.05
2¾	12.80	11.52	10.24	9.60	8.53	7.68	6.40	5.76	5.12	4.48	3.84	3.20
3	13.50	12.15	10.80	10.13	9.00	8.10	6.75	6.08	5.40	4.73	4.05	3.38
3¼	14.20	12.78	11.36	10.65	9.47	8.52	7.10	6.39	5.68	4.97	4.26	3.55
3½	15.00	13.50	12.00	11.25	10.00	9.00	7.50	6.75	6.00	5.25	4.50	3.75
3¾	15.80	14.22	12.64	11.85	10.53	9.48	7.90	7.11	6.32	5.53	4.74	3.95
4	16.60	14.94	13.28	12.45	11.07	9.96	8.30	7.47	6.64	5.81	4.98	4.15
4½	18.60	16.74	14.88	13.95	12.41	11.16	9.30	8.37	7.44	6.51	5.58	4.65
5	22.60	20.34	18.08	16.95	15.07	13.56	11.30	10.17	9.04	7.91	6.78	5.65

9/16 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1	7.90	7.11	6.32	5.93	5.27	4.74	3.95	3.56	3.16	2.77	2.37	1.98
1¼	8.40	7.56	6.72	6.30	5.60	5.04	4.20	3.78	3.36	2.94	2.52	2.10
1½	8.90	8.01	7.12	6.68	5.93	5.34	4.45	4.01	3.56	3.12	2.67	2.23
1¾	9.40	8.46	7.52	7.05	6.27	5.64	4.70	4.23	3.76	3.29	2.82	2.35
2	10.00	9.00	8.00	7.50	6.67	6.00	5.00	4.50	4.00	3.50	3.00	2.50
2¼	10.60	9.54	8.48	7.95	7.07	6.36	5.30	4.77	4.24	3.71	3.18	2.65
2½	11.20	10.08	8.96	8.40	7.47	6.72	5.60	5.04	4.48	3.92	3.36	2.80
2¾	11.80	10.62	9.44	8.85	7.87	7.08	5.90	5.31	4.72	4.13	3.54	2.95
3	12.40	11.16	9.92	9.30	8.27	7.44	6.20	5.58	4.96	4.34	3.72	3.10
3¼	13.00	11.70	10.40	9.75	8.67	7.80	6.50	5.85	5.20	4.55	3.90	3.25
3½	13.60	12.24	10.88	10.20	9.07	8.16	6.80	6.12	5.44	4.76	4.08	3.40
3¾	14.30	12.87	11.44	10.73	9.53	8.58	7.15	6.44	5.72	5.01	4.29	3.58
4	15.00	13.50	12.00	11.25	10.00	9.00	7.50	6.75	6.00	5.25	4.50	3.75
4½	17.50	15.75	14.00	13.13	11.67	10.50	8.75	7.88	7.00	6.13	5.25	4.38

3/4 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1¼	13.30	11.97	10.64	9.98	8.87	7.98	6.65	5.99	5.32	4.66	3.99	3.33
1½	14.10	12.69	11.28	10.58	9.40	8.46	7.05	6.35	5.64	4.94	4.23	3.53
1¾	14.90	13.41	11.92	11.18	9.93	8.94	7.45	6.71	5.96	5.22	4.47	3.73
2	15.70	14.13	12.56	11.88	10.47	9.42	7.85	7.07	6.28	5.50	4.71	3.93
2¼	16.50	14.85	13.20	12.38	11.00	9.90	8.25	7.43	6.60	5.78	4.95	4.13
2½	17.30	15.57	13.84	12.98	11.53	10.38	8.65	7.79	6.92	6.06	5.19	4.33
2¾	18.10	16.29	14.48	13.58	12.07	10.86	9.05	8.15	7.24	6.34	5.43	4.53
3	18.90	17.01	15.12	14.18	12.60	11.34	9.45	8.51	7.56	6.62	5.67	4.73
3¼	19.80	17.82	15.84	14.85	13.20	11.88	9.90	8.91	7.92	6.93	5.94	4.95
3½	20.80	18.72	16.64	15.60	13.87	12.48	10.40	9.36	8.32	7.28	6.24	5.20
3¾	21.80	19.62	17.44	16.35	14.53	13.08	10.90	9.81	8.72	7.63	6.54	5.45
4	22.80	20.52	18.24	17.10	15.20	13.68	11.40	10.26	9.12	7.98	6.84	5.70
4½	25.50	22.95	20.40	19.13	17.00	15.30	12.75	11.48	10.20	8.93	7.65	6.38
5	30.90	27.81	24.72	23.18	20.60	18.54	15.45	13.91	12.36	10.82	9.27	7.73

4	15.00	13.50	12.00	11.25	10.00	9.00	7.50	6.75	6.00	5.25	4.50	3.75
4½	17.50	15.75	14.00	13.13	11.67	10.50	8.75	7.88	7.00	6.13	5.25	4.38

4½	25.50	22.95	20.40	19.13	17.00	15.30	12.75	11.48	10.20	8.93	7.65	6.38
5	30.90	27.81	24.72	23.18	20.60	18.54	15.45	13.91	12.36	10.82	9.27	7.73

HEXAGON HEAD CAP SCREWS—Milled or Upset

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions. **List prices are per 100** as adopted Aug. 1, 1936.

HEXAGON HEAD CAP SCREWS 7/8 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
2	24.60	22.14	19.68	18.45	16.40	14.76	12.30	11.07	9.84	8.61	7.38	6.15
2¼	25.80	23.22	20.64	19.35	17.20	15.48	12.90	11.61	10.32	9.03	7.74	6.45
2½	27.20	24.48	21.76	20.40	18.13	16.32	13.60	12.24	10.88	9.52	8.16	6.80
2¾	28.60	25.74	22.88	21.45	19.07	17.16	14.30	12.87	11.44	10.01	8.58	7.15
3	30.00	27.00	24.00	22.50	20.00	18.00	15.00	13.50	12.00	10.50	9.00	7.50
3¼	31.50	28.35	25.20	23.63	21.00	18.90	15.75	14.18	12.60	11.03	9.45	7.88
3½	33.00	29.70	26.40	24.75	22.00	19.80	16.50	14.85	13.20	11.55	9.90	8.25
3¾	35.00	31.50	28.00	26.25	23.33	21.00	17.50	15.75	14.00	12.25	10.50	8.75
4	37.00	33.30	29.60	27.75	25.04	22.20	18.50	16.65	14.80	12.95	11.10	9.25
4½	41.00	36.90	32.80	30.75	27.33	24.60	20.50	18.45	16.40	14.35	12.30	10.25
5	45.00	40.50	36.00	33.75	30.00	27.00	22.50	20.25	18.00	15.75	13.50	11.25
5½	54.00	48.60	43.20	40.50	36.01	32.40	27.00	24.30	21.60	18.90	16.20	13.50
6	63.00	56.70	50.40	47.25	42.00	37.80	31.50	28.35	25.20	22.05	18.90	15.75

HEXAGON HEAD CAP SCREWS 1 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
2	36.00	32.40	28.80	27.00	24.00	21.60	18.00	16.20	14.40	12.60	10.80	9.00
2¼	38.00	34.20	30.40	28.50	25.33	22.80	19.00	17.10	15.20	13.30	11.40	9.50
2½	40.00	36.00	32.00	30.00	26.67	24.00	20.00	18.00	16.00	14.00	12.00	10.00
2¾	42.00	37.80	33.60	31.50	28.00	25.20	21.00	18.90	16.80	14.70	12.60	10.50
3	44.00	39.60	35.20	33.00	29.33	26.40	22.00	19.80	17.60	15.40	13.20	11.00
3¼	46.00	41.40	36.80	34.50	30.67	27.60	23.00	20.70	18.40	16.10	13.80	11.50
3½	49.00	44.10	39.20	36.75	32.67	29.40	24.50	22.05	19.60	17.15	14.70	12.25
3¾	52.00	46.80	41.60	39.00	34.67	31.20	26.00	23.40	20.80	18.20	15.60	13.00
4	55.00	49.50	44.00	41.25	36.67	33.00	27.50	24.75	22.00	19.25	16.50	13.75
4½	61.00	54.90	48.80	45.75	40.67	36.60	30.50	27.45	24.40	21.35	18.30	15.25
5	68.00	61.20	54.40	51.00	45.34	40.80	34.00	30.60	27.20	23.80	20.40	17.00
5½	80.00	72.00	64.00	60.00	53.34	48.00	40.00	36.00	32.00	28.00	24.00	20.00
6	92.00	82.80	73.60	69.00	61.34	55.20	46.00	41.40	36.80	32.20	27.60	23.00

FLAT HEAD CAP SCREWS — Coarse (USS) Thread

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 7/16 inch diameter flat head cap screws, 2 inches in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of $4.14 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Feb. 1, 1924.

1/4 INCH DIAMETER

Lgth.	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	2.70	2.43	2.10	2.03	1.80	1.62	1.35	1.22	1.08	.95	.81	.68
1	3.05	2.75	2.44	2.29	2.04	1.83	1.53	1.37	1.12	1.07	.92	.76
1¼	3.35	3.02	2.68	2.52	2.24	2.01	1.67	1.51	1.34	1.17	1.01	.84
1½	3.65	3.29	2.92	2.73	2.43	2.19	1.88	1.64	1.46	1.28	1.10	.91
1¾	3.80	3.42	3.04	2.85	2.54	2.28	1.90	1.71	1.52	1.33	1.14	.95
2	4.00	3.60	3.20	3.00	2.67	2.40	2.00	1.80	1.60	1.40	1.20	1.00
2¼	4.15	3.74	3.32	3.12	2.77	2.49	2.08	1.87	1.66	1.45	1.25	1.04

5/16 INCH DIAMETER

Lgth.	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	3.00	2.70	2.40	2.25	2.00	1.80	1.50	1.35	1.20	1.05	.90	.75
1	3.35	3.02	2.68	2.52	2.24	2.01	1.67	1.51	1.34	1.17	1.01	.84
1¼	3.55	3.20	2.84	2.67	2.37	2.13	1.78	1.60	1.42	1.24	1.07	.89
1½	3.80	3.42	3.04	2.85	2.54	2.28	1.90	1.71	1.52	1.33	1.14	.95
1¾	4.10	3.69	3.28	3.08	2.73	2.46	2.05	1.85	1.64	1.44	1.23	1.03
2	4.35	3.92	3.48	3.27	2.90	2.61	2.18	1.96	1.74	1.52	1.31	1.09
2¼	4.65	4.19	3.72	3.31	3.10	2.79	2.33	2.09	1.86	1.63	1.40	1.16
2½	4.95	4.36	3.96	3.72	3.30	2.97	2.48	2.23	1.98	1.73	1.49	1.24
2¾	5.25	4.73	4.20	3.93	3.50	3.15	2.63	2.36	2.10	1.84	1.58	1.31

3/8 INCH DIAMETER

Lgth.	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	3.75	3.38	3.00	2.82	2.50	2.25	1.88	1.69	1.50	1.31	1.13	.94
1	4.15	3.74	3.32	3.12	2.77	2.49	2.08	1.87	1.66	1.45	1.25	1.04
1¼	4.45	4.01	3.56	3.34	2.97	2.67	2.23	2.00	1.78	1.56	1.34	1.11
1½	4.80	4.32	3.84	3.60	3.20	2.88	2.40	2.16	1.92	1.68	1.44	1.20
1¾	5.20	4.68	4.16	3.90	3.47	3.12	2.60	2.34	2.08	1.82	1.56	1.30
2	5.60	5.04	4.48	4.20	3.73	3.36	2.80	2.52	2.24	1.96	1.68	1.40
2¼	6.00	5.40	4.80	4.50	4.00	3.60	3.00	2.70	2.40	2.10	1.80	1.50
2½	6.40	5.76	5.12	4.80	4.27	3.84	3.20	2.88	2.56	2.24	1.92	1.60
2¾	6.80	6.12	5.44	5.10	4.53	4.08	3.40	3.06	2.72	2.38	2.04	1.70
3	7.20	6.48	5.76	5.40	4.80	4.32	3.60	3.24	2.88	2.52	2.16	1.80

7/16 INCH DIAMETER

Lgth.	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1	5.30	4.77	4.24	3.98	3.53	3.18	2.65	2.39	2.12	1.86	1.59	1.33
1¼	5.65	5.09	4.52	4.25	3.77	3.39	2.83	2.54	2.26	1.98	1.70	1.41
1½	6.05	5.45	4.84	4.55	4.04	3.63	3.03	2.72	2.42	2.12	1.82	1.51
1¾	6.50	5.85	5.20	4.88	4.33	3.90	3.25	2.93	2.60	2.28	1.95	1.63
2	6.90	6.21	5.52	5.17	4.60	4.14	3.45	3.11	2.76	2.42	2.07	1.73
2¼	7.50	6.75	6.00	5.63	5.00	4.50	3.75	3.38	3.00	2.63	2.25	1.88
2½	8.05	7.25	6.44	6.04	5.37	4.83	4.03	3.62	3.22	2.82	2.42	2.01
2¾	8.60	7.74	6.88	6.45	5.73	5.16	4.30	3.87	3.44	3.01	2.58	2.15
3	9.15	8.24	7.32	6.87	6.10	5.49	4.58	4.12	3.66	3.20	2.75	2.29

1/2 INCH DIAMETER

Lgth.	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1¼	6.85	6.17	5.46	5.15	4.57	4.11	3.43	3.08	2.74	2.40	2.06	1.71
1½	7.35	6.52	5.88	5.52	4.90	4.41	3.68	3.31	2.94	2.57	2.21	1.84
1¾	7.80	7.02	6.24	5.85	5.20	4.68	3.90	3.51	3.12	2.73	2.34	1.95
2	8.30	7.47	6.64	6.23	5.53	4.98	4.15	3.74	3.32	2.91	2.49	2.08
2¼	9.00	8.10	7.20	6.75	6.00	5.40	4.50	4.05	3.60	3.15	2.70	2.25
2½	9.75	8.78	7.80	7.32	6.50	5.85	4.88	4.39	3.90	3.41	2.93	2.44
2¾	10.50	9.45	8.40	7.88	7.00	6.30	5.25	4.73	4.20	3.68	3.15	2.63
3	11.20	10.08	9.86	8.40	7.47	6.72	5.60	5.04	4.48	3.92	3.36	2.80

9/16 INCH DIAMETER

Lgth.	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1½	10.50	9.45	8.40	7.88	7.00	6.30	5.25	4.73	4.20	3.68	3.15	2.63
1¾	11.15	10.04	8.92	8.35	7.44	6.69	5.58	5.02	4.46	3.90	3.35	2.79
2	11.80	10.62	9.44	8.85	7.87	7.08	5.90	5.31	4.72	4.13	3.54	2.95
2¼	12.60	11.34	10.08	9.45	8.40	7.56	6.30	5.67	5.04	4.41	3.78	3.15
2½	13.50	12.15	10.80	10.13	9.00	8.10	6.75	6.08	5.40	4.73	4.05	3.38
2¾	14.25	12.83	11.40	10.69	9.50	8.55	7.13	6.41	5.70	4.99	4.27	3.56
3	15.00	13.50	12.00	11.25	10.00	9.00	7.50	6.75	6.00	5.25	4.50	3.75

3	7.20	6.48	5.76	5.40	4.80	4.32	3.60	3.24	2.88	2.52	2.16	1.80

FLAT HEAD CAP SCREWS

COARSE (USS) THREAD

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions. **List prices are per 100.**

FLAT HEAD CAP SCREWS
5/8 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1¾	11.50	10.35	9.20	8.63	7.67	6.90	5.75	5.18	4.60	4.03	3.45	2.88
2	12.15	10.94	9.72	9.12	8.10	7.29	6.08	5.47	4.86	4.25	3.65	3.04
2¼	13.00	11.70	10.40	9.75	8.67	7.80	6.50	5.85	5.20	4.55	3.90	3.25
2½	13.90	12.51	11.12	10.43	9.27	8.34	6.95	6.26	5.56	4.87	4.17	3.48
2¾	14.65	13.19	11.72	10.99	9.77	8.79	7.33	6.59	5.86	5.13	4.40	3.66
3	15.40	13.86	12.32	11.55	10.27	9.24	7.70	6.93	6.16	5.39	4.62	3.85

FLAT HEAD CAP SCREWS
3/4 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
2	16.75	15.08	13.40	12.57	11.17	10.05	8.38	7.54	6.70	5.86	5.03	4.19
2¼	17.80	16.02	14.24	13.35	11.87	10.68	8.90	8.01	7.12	6.23	5.34	4.45
2½	18.80	16.92	15.04	14.10	12.57	11.28	9.40	8.46	7.52	6.58	5.64	4.70
2¾	19.80	17.82	15.84	14.85	13.20	11.88	9.90	8.91	7.92	6.93	5.94	4.95
3	20.90	18.81	16.72	15.68	13.93	12.54	10.45	9.41	8.36	7.32	6.27	5.23

FILLISTER HEAD CAP SCREWS

FILLISTER HEAD CAP SCREWS
1/4 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	2.70	2.43	2.10	2.03	1.80	1.62	1.35	1.22	1.08	.95	.81	.68
1	3.05	2.75	2.44	2.29	2.04	1.83	1.53	1.37	1.22	1.07	.92	.76
1¼	3.35	3.02	2.68	2.52	2.24	2.01	1.67	1.51	1.34	1.17	1.01	.84
1½	3.65	3.29	2.92	2.73	2.43	2.19	1.88	1.64	1.46	1.28	1.10	.91
1¾	3.80	3.42	3.04	2.85	2.54	2.28	1.90	1.71	1.52	1.33	1.14	.95
2	4.00	3.60	3.20	3.00	2.67	2.40	2.00	1.80	1.60	1.40	1.20	1.00
2¼	4.15	3.74	3.32	3.12	2.77	2.49	2.08	1.87	1.66	1.45	1.25	1.04
2½	4.35	3.92	3.48	3.27	2.90	2.61	2.18	1.96	1.74	1.52	1.31	1.09
2¾	4.55	4.10	3.64	3.42	3.04	2.73	2.28	2.05	1.82	1.59	1.37	1.14
3	4.70	4.23	3.76	3.53	3.13	2.82	2.35	2.12	1.88	1.65	1.41	1.18

FILLISTER HEAD CAP SCREWS
5/16 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	3.00	2.70	2.40	2.25	2.00	1.80	1.50	1.35	1.20	1.05	.90	.75
1	3.35	3.02	2.68	2.52	2.24	2.01	1.67	1.51	1.34	1.17	1.01	.84
1¼	3.55	3.20	2.84	2.67	2.37	2.13	1.78	1.60	1.42	1.24	1.07	.89
1½	3.80	3.42	3.04	2.85	2.54	2.28	1.90	1.71	1.52	1.33	1.14	.95
1¾	4.10	3.69	3.28	3.08	2.73	2.46	2.05	1.85	1.64	1.44	1.23	1.03
2	4.35	3.92	3.48	3.27	2.90	2.61	2.18	1.96	1.74	1.52	1.31	1.09
2¼	4.65	4.19	3.72	3.31	3.10	2.79	2.33	2.09	1.86	1.63	1.40	1.16
2½	4.95	4.36	3.96	3.72	3.30	2.97	2.48	2.23	1.98	1.73	1.49	1.24
2¾	5.25	4.73	4.20	3.93	3.50	3.15	2.63	2.36	2.10	1.84	1.58	1.31
3	5.55	5.00	4.44	4.16	3.70	3.33	2.78	2.50	2.22	1.94	1.67	1.39
3¼	5.85	5.27	4.68	4.38	3.90	3.51	2.92	2.63	2.34	2.05	1.76	1.46

FILLISTER HEAD CAP SCREWS

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 1/2-inch diameter fillister head cap screws, 2½ inches in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of $5.85 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Feb. 1, 1924.

3/8 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	3.75	3.38	3.00	2.82	2.50	2.25	1.88	1.69	1.50	1.31	1.13	.94
1	4.15	3.74	3.32	3.12	2.77	2.49	2.08	1.87	1.66	1.45	1.25	1.04
1¼	4.45	4.01	3.56	3.34	2.97	2.67	2.23	2.00	1.78	1.56	1.34	1.11
1½	4.80	4.32	3.84	3.60	3.20	2.88	2.40	2.16	1.92	1.68	1.44	1.20
1¾	5.20	4.68	4.16	3.90	3.47	3.12	2.60	2.34	2.08	1.82	1.56	1.30
2	5.60	5.04	4.48	4.20	3.73	3.36	2.80	2.52	2.24	1.96	1.68	1.40
2¼	6.00	5.40	4.80	4.50	4.00	3.60	3.00	2.70	2.40	2.10	1.80	1.50
2½	6.40	5.76	5.12	4.80	4.27	3.84	3.20	2.88	2.56	2.24	1.92	1.60
2¾	6.80	6.12	5.44	5.10	4.53	4.08	3.40	3.06	2.72	2.38	2.04	1.70
3	7.20	6.48	5.76	5.40	4.80	4.32	3.60	3.24	2.88	2.52	2.16	1.80
3¼	7.60	6.94	6.08	5.70	5.07	4.56	3.80	3.42	3.04	2.66	2.28	1.90
3½	8.00	7.20	6.40	6.00	5.13	4.80	4.00	3.60	3.20	2.80	2.40	2.00

1/2 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	6.10	5.49	4.88	4.58	4.07	3.66	3.05	2.75	2.44	2.14	1.83	1.53
1	6.50	5.85	5.20	4.88	4.33	3.90	3.25	2.93	2.60	2.28	1.95	1.63
1¼	6.85	6.17	5.46	5.15	4.57	4.11	3.43	3.08	2.74	2.40	2.06	1.71
1½	7.35	6.52	5.88	5.52	4.90	4.41	3.68	3.31	2.94	2.57	2.21	1.84
1¾	7.80	7.02	6.24	5.85	5.20	4.68	3.90	3.51	3.12	2.73	2.34	1.95
2	8.30	7.47	6.64	6.23	5.53	4.98	4.15	3.74	3.32	2.91	2.49	2.08
2¼	9.00	8.10	7.20	6.75	6.00	5.40	4.50	4.05	3.60	3.15	2.70	2.25
2½	9.75	8.78	7.80	7.32	6.50	5.85	4.88	4.39	3.90	3.41	2.93	2.44
2¾	10.50	9.45	8.40	7.88	7.00	6.30	5.25	4.73	4.20	3.68	3.15	2.63
3	11.20	10.08	8.96	8.40	7.47	6.72	5.60	5.04	4.48	3.92	3.36	2.80
3¼	12.05	10.85	9.64	9.05	8.04	7.23	6.03	5.42	4.82	4.22	3.62	3.01
3½	12.80	11.52	10.24	9.60	8.53	7.68	6.40	5.76	5.12	4.48	3.84	3.20
3¾	13.60	12.24	10.88	10.20	9.07	8.16	6.80	6.12	5.44	4.76	4.08	3.40
4	14.40	12.96	11.52	10.80	9.60	8.64	7.20	6.48	5.76	5.04	4.32	3.60

7/16 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	4.90	4.41	3.90	3.68	3.27	2.94	2.45	2.21	1.96	1.72	1.47	1.23
1	5.30	4.77	4.24	3.98	3.53	3.18	2.65	2 39	2.12	1.86	1.59	1.33
1¼	5.65	5.09	4.52	4.25	3.77	3.39	2.83	2.54	2.26	1.98	1.70	1.41
1½	6.05	5.45	4.84	4.55	4.04	3.63	3.03	2.72	2.42	2.12	1.82	1.51
1¾	6.50	5.85	5.20	4.88	4.33	3.90	3.25	2.93	2.60	2.28	1.95	1.63
2	6.90	6.21	5.52	5.17	4.60	4.14	3.45	3.11	2.76	2.42	2.07	1.73
2¼	7.50	6.75	6.00	5.63	5.00	4.50	3.75	3.38	3.00	2.63	2.25	1.88
2½	8.05	7.25	6.44	6.04	5.37	4.83	4.03	3.62	3.22	2.82	2.42	2.01
2¾	8.60	7.74	6.88	6.45	5.73	5.16	4.30	3.87	3.44	3.01	2.58	2.15
3	9.15	8.24	7.32	6.87	6.10	5.49	4.58	4.12	3.66	3.20	2.75	2.29
3¼	9.75	8.78	7.80	7.32	6.50	5.85	4.88	4.39	3.90	3.41	2.93	2.44
3½	10.35	9.32	8.28	7.76	6.90	6.21	5.18	4.66	4.14	3.62	3.11	2.59
3¾	10.95	9.86	8.76	8.22	7.30	6.57	5.48	4.93	4.36	3.83	3.29	2.74

9/16 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1	9.80	8.82	7.84	7.35	6.54	5.88	4.90	4.41	3.92	3.43	2.94	2.45
1¼	10.15	9 14	8.12	7.61	6.77	6.09	5.08	4.57	4.06	3.55	3.05	2.54
1½	10.50	9.45	8.40	7.80	7.00	6.30	5.25	4.73	4.20	3.68	3.15	2.63
1¾	11.15	10.04	8.92	8.35	7.44	6.69	5.58	5.02	4.46	3.90	3.35	2.79
2	11.80	10.62	9.44	8.85	7.87	7.08	5.90	5.31	4.72	4.13	3.54	2.95
2¼	12.60	11.34	10.08	9.45	8.40	7.56	6.30	5.67	5.04	4.41	3.78	3.15
2½	13.50	12.15	10.80	10.13	9.00	8.10	6.75	6.08	5.40	4.73	4.05	3.38
2¾	14.25	12.83	11.40	10.69	9.50	8.55	7.13	6.41	5.70	4.99	4.27	3.56
3	15.00	13.50	12.00	11.25	10.00	9.00	7.50	6.75	6.00	5.25	4.50	3.75
3¼	15.70	14.13	12.56	11.78	10.47	9.42	7.85	7.07	6.28	5.50	4.71	3.93
3½	16.45	14.81	13.16	12.35	10.97	9.87	8.23	7.40	6.58	5.76	4.94	4.11
3¾	17.15	15.44	13.72	12.86	11.45	10.29	8.58	7.72	6.86	6.00	5.15	4.29
4	17.85	16.07	14.28	13.39	11.90	10.71	8.93	8.03	7.14	6.25	5.36	4.46
4¼	18.60	16.74	14.88	13.95	12.40	11.16	9.30	8.37	7.44	6.51	5.58	4.65

Length	List	10	20	25	33⅓	40	50	55	60	65	70	75
3¾	10.95	9.86	8.76	8.22	7.30	6.57	5.48	4.93	4.36	3.83	3.29	2.74

Length	List	10	20	25	33⅓	40	50	55	60	65	70	75
4¼	18.60	16.74	14.88	13.95	12.40	11.16	9.30	8.37	7.44	6.51	5.58	4.65

FILLISTER HEAD CAP SCREWS

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions. **List prices are per 100.**

FILLISTER HEAD CAP SCREWS
5/8 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1¼	10.50	9.45	8.40	7.80	7.00	6.30	5.25	4.73	4.20	3.68	3.15	2.63
1½	10.85	9.77	8.68	8.15	7.24	6.51	5.43	4.88	4.34	3.80	3.26	2.71
1¾	11.50	10.35	9.20	8.63	7.67	6.90	5.75	5.18	4.60	4.03	3.45	2.88
2	12.15	10.94	9.72	9.12	8.10	7.29	6.08	5.47	4.86	4.25	3.65	3.04
2¼	13.00	11.70	10.10	9.75	8.67	7.80	6.50	5.85	5.20	4.55	3.90	3.25
2½	13.90	12.51	11.12	10.43	9.27	8.34	6.95	6.26	5.56	4.87	4.17	3.48
2¾	14.65	13.19	11.72	10.99	9.77	8.79	7.33	6.59	5.86	5.13	4.40	3.66
3	15.40	13.86	12.32	11.55	10.27	9.24	7.70	6.93	6.16	5.39	4.62	3.85
3¼	16.10	14.49	12.88	12.08	10.73	9.66	8.05	7.25	6.44	5.64	4.83	4.03
3½	16.85	15.17	13.48	12.65	11.25	10.11	8.43	7.58	6.74	5.90	5.06	4.21
3¾	17.50	15.75	14.00	13.13	11.67	10.50	8.75	7.88	7.00	6.13	5.25	4.38
4	18.35	16.52	14.68	13.75	12.24	11.01	9.18	8.26	7.34	6.42	5.51	4.59
4¼	19.00	17.10	15.20	14.25	12.67	11.40	9.50	8.55	7.60	6.65	5.70	4.75
4½	19.75	17.78	15.80	14.82	13.17	11.85	9.88	8.89	7.90	6.91	5.93	4.94

FILLISTER HEAD CAP SCREWS
3/4 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1½	15.95	14.36	12.76	11.97	10.64	9.57	7.98	7.18	6.38	5.58	4.79	3.99
1¾	16.35	14.72	13.08	12.25	10.90	9.81	8.18	7.36	6.54	5.72	4.91	4.09
2	16.75	15.08	13.40	12.57	11.17	10.05	8.38	7.54	6.70	5.86	5.03	4.19
2¼	17.80	16.02	14.24	13.35	11.87	10.68	8.90	8.01	7.12	6.23	5.34	4.45
2½	18.80	16.92	15.04	14.10	12.57	11.28	9.40	8.46	7.52	6.58	5.64	4.70
2¾	19.80	17.82	15.84	14.85	13.20	11.88	9.90	8.91	7.92	6.93	5.94	4.95
3	20.90	18.81	16.72	15.68	13.93	12.54	10.45	9.41	8.36	7.32	6.27	5.23
3¼	22.10	19.89	17.68	16.58	14.73	13.26	11.05	9.95	8.84	7.74	6.63	5.53
3½	23.15	20.84	18.52	17.37	15.45	13.89	11.58	10.42	9.26	8.10	6.95	5.79
3¾	24.40	21.96	19.52	18.30	16.27	14.64	12.20	10.98	9.76	8.54	7.32	6.10
4	25.60	23.04	20.48	19.20	17.07	15.36	12.80	11.52	10.24	8.96	7.68	6.40
4¼	26.30	23.67	21.04	19.73	17.53	15.78	13.15	11.84	10.52	9.21	7.89	6.58
4½	27.00	24.30	21.60	22.25	18.00	16.20	13.50	12.15	10.80	9.45	8.10	6.75
4¾	27.80	25.02	22.24	20.85	18.54	16.68	13.90	12.51	11.12	9.73	8.34	6.95

SQUARE HEAD SET SCREWS
ROUND OR CUP POINTS

SQUARE HEAD SET SCREWS
1/4 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
½	2.80	2.52	2.24	2.10	1.87	1.68	1.40	1.26	1.12	.98	.84	.70
⅝	2.85	2.57	2.28	2.15	1.90	1.71	1.43	1.28	1.14	1.00	.86	.71
¾	2.90	2.61	2.32	2.18	1.93	1.74	1.45	1.31	1.16	1.02	.87	.73
⅞	3.10	2.79	2.48	2.33	2.07	1.86	1.55	1.40	1.24	1.09	.93	.78
1	3.25	2.93	2.60	2.45	2.17	1.95	1.63	1.46	1.30	1.14	.98	.81
1¼	3.60	3.24	2.88	2.70	2.40	2.16	1.80	1.62	1.44	1.26	1.08	.90
1½	3.95	3.56	3.16	2.97	2.64	2.37	1.98	1.78	1.58	1.38	1.19	.99
1¾	4.25	3.83	3.40	3.20	2.86	2.55	2.13	1.91	1.70	1.49	1.28	1.06
2	4.55	4.10	3.64	3.42	3.06	2.73	2.28	2.05	1.82	1.59	1.37	1.14
2¼	4.80	4.32	3.84	3.60	3.20	2.88	2.40	2.16	1.92	1.68	1.44	1.20
2½	5.10	4.59	4.08	3.83	3.40	3.06	2.55	2.30	2.04	1.79	1.53	1.28
2¾	5.35	4.82	4.28	4.02	3.57	3.21	2.68	2.41	2.14	1.87	1.61	1.34
3	5.65	5.09	4.52	4.24	3.77	3.39	2.83	2.54	2.26	1.98	1.70	1.41

SQUARE HEAD SET SCREWS
5/16 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
½	3.15	2.84	2.52	2.37	2.10	1.89	1.58	1.42	1.26	1.10	.95	.79
⅝	3.20	2.88	2.56	2.40	2.14	1.92	1.60	1.44	1.28	1.12	.96	.80
¾	3.25	2.93	2.60	2.45	2.17	1.95	1.63	1.46	1.30	1.14	.98	.81
⅞	3.40	3.06	2.72	2.55	2.27	2.04	1.70	1.53	1.36	1.19	1.02	.85
1	3.55	3.20	2.84	2.67	2.37	2.13	1.78	1.60	1.42	1.24	1.07	.89
1¼	3.90	3.51	3.12	2.93	2.60	2.34	1.95	1.76	1.56	1.37	1.17	.98
1½	4.20	3.78	3.36	3.15	2.80	2.52	2.10	1.89	1.68	1.47	1.26	1.05
1¾	4.70	4.23	3.76	3.53	3.13	2.82	2.35	2.12	1.88	1.65	1.41	1.18
2	5.20	4.68	4.16	3.90	3.47	3.12	2.60	2.34	2.08	1.82	1.56	1.30
2¼	5.65	5.09	4.52	4.25	3.77	3.39	2.83	2.54	2.26	1.98	1.70	1.41
2½	6.15	5.54	4.92	4.58	4.10	3.69	3.08	2.77	2.46	2.15	1.85	1.54
2¾	6.60	5.94	5.28	4.95	4.40	3.96	3.30	2.97	2.64	2.31	1.98	1.65
3	7.10	6.39	5.68	5.33	4.73	4.26	3.55	3.20	2.84	2.49	2.13	1.78

SQUARE HEAD SET SCREWS — Round or Cup Points

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 1/2-inch diameter square head set screws, 1 1/2 inches in length—find the correct length line and follow it along until the 40 per cent column is reached where the correct net price of $5.01 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Sept. 1, 1932.

3/8 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
½	3.65	3.29	2.92	2.74	2.44	2.19	1.83	1.64	1.46	1.28	1.10	.91
⅝	3.70	3.33	2.96	2.78	2.47	2.22	1.85	1.67	1.48	1.30	1.11	.93
¾	3.75	3.38	3.00	2.82	2.50	2.25	1.88	1.69	1.50	1.31	1.13	.94
⅞	4.00	3.60	3.20	3.00	2.67	2.40	2.00	1.80	1.60	1.40	1.20	1.00
1	4.30	3.87	3.44	3.23	2.87	2.58	2.15	1.94	1.72	1.51	1.29	1.08
1¼	4.80	4.32	3.84	3.60	3.20	2.88	2.40	2.16	1.92	1.68	1.44	1.20
1½	5.25	4.73	4.20	3.95	3.50	3.15	2.63	2.36	2.10	1.84	1.58	1.31
1¾	5.90	5.31	4.72	4.43	3.93	3.54	2.95	2.66	2.36	2.07	1.77	1.48
2	6.55	5.90	5.24	4.92	4.37	3.93	3.28	2.95	2.62	2.29	1.97	1.64
2¼	7.15	6.44	5.72	5.37	4.77	4.29	3.58	3.22	2.86	2.50	2.15	1.79
2½	7.75	6.98	6.20	5.82	5.17	4.65	3.88	3.49	3.10	2.71	2.33	1.94
2¾	8.40	7.56	6.72	6.30	5.60	5.04	4.20	3.78	3.36	2.94	2.52	2.10
3	9.00	8.10	7.20	6.75	6.00	5.40	4.50	4.05	3.60	3.15	2.70	2.25

1/2 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
⅝	6.55	5.90	5.24	4.92	4.37	3.93	3.28	2.95	2.62	2.29	1.97	1.64
¾	6.65	5.99	5.32	4.99	4.44	3.99	3.33	2.99	2.66	2.33	2.00	1.66
⅞	6.75	6.08	5.40	5.07	4.50	4.05	3.38	3.04	2.70	2.36	2.03	1.69
1	6.85	6.17	5.48	5.14	4.57	4.11	3.43	3.08	2.74	2.40	2.06	1.71
1¼	7.60	6.84	6.08	5.70	5.07	4.56	3.80	3.42	3.04	2.66	2.28	1.90
1½	8.35	7.52	6.68	6.26	5.57	5.01	4.18	3.76	3.34	2.92	2.51	2.09
1¾	9.10	8.19	7.28	6.83	6.07	5.46	4.55	4.10	3.64	3.19	2.73	2.28
2	9.80	8.72	7.84	7.35	6.53	5.88	4.90	4.41	3.92	3.43	2.94	2.45
2¼	10.60	9.54	8.48	7.95	7.07	6.36	5.30	4.77	4.24	3.71	3.18	2.65
2½	11.40	10.26	9.12	8.55	7.60	6.84	5.70	5.13	4.56	3.99	3.42	2.85
2¾	12.15	10.94	9.72	9.12	8.10	7.29	6.08	5.47	4.86	4.25	3.65	3.04
3	12.35	11.12	9.88	9.27	8.24	7.41	6.18	5.56	4.94	4.32	3.71	3.09
3¼	14.15	12.74	11.32	10.62	9.45	8.49	7.08	6.37	5.66	4.95	4.25	3.54
3½	15.35	13.82	12.28	11.51	10.24	9.21	7.68	6.91	6.14	5.37	4.61	3.84
3¾	16.60	14.94	13.28	12.45	11.07	9.96	8.30	7.47	6.64	5.81	4.98	4.15
4	17.85	16.07	14.28	13.10	11.90	10.71	8.93	8.03	7.14	6.25	5.36	4.46

7/16 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
⅝	5.35	4.82	4.28	4.02	3.57	3.21	2.63	2 41	2.14	1.87	1.61	1.34
¾	5.45	4.91	4.36	4.09	3.65	3.27	2.73	2.45	2.18	1.91	1.64	1.36
⅞	5.55	5.00	4.44	4.17	3.70	3.33	2.78	2.50	2.22	1.94	1.67	1.39
1	5.65	5.09	4.52	4.24	3.77	3.39	2.83	2.54	2.26	1.98	1.70	1.41
1¼	6.15	5.54	4.92	4.62	4.10	3.69	3.08	2.77	2.46	2.15	1.85	1.54
1½	6.65	5.99	5.32	5.00	4.44	3.99	3.33	2.99	2.66	2.33	2.00	1.66
1¾	7.25	6.53	5.80	5.44	4.84	4.35	3.73	3.27	2.90	2.54	2.18	1.81
2	7.90	7.11	6.32	5.93	5.27	4.74	3.95	3.56	3.16	2.77	2.37	1.98
2¼	8.65	7.79	6.92	6.50	5.77	5.19	4.33	3.89	3.46	3.03	2.60	2.16
2½	9.45	8.51	7.56	7.09	6.30	5.67	4.78	4.25	3.78	3.31	2.84	2.36
2¾	10.15	9.14	8.12	7.61	6.77	6.09	5.08	4.57	4.06	3.55	3.05	2.54
3	10.90	9.81	8.72	8.18	7.27	6.54	5.45	4.91	4.36	3.82	3.27	2.73
3¼	11.70	10.53	9.36	8.78	7.80	7.02	5.85	5.27	4.68	4.10	3.51	2.93
3½	12.45	11.21	9.96	9.35	8.30	7.47	6.23	5.60	4.98	4.36	3.74	3.11
3¾	13.25	11.93	10.60	9.94	8.82	7.95	6.63	5.96	5.30	4.64	3.98	3.31
4	14.00	12.60	11.20	10.50	9.33	8.40	7.00	6.30	5.60	4.90	4.20	3.50

9/16 INCH DIAMETER

Length	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	11.15	10.04	8.92	8.36	7.44	6.69	5.57	5.02	4.46	3.90	3.35	2.79
⅞	11.35	10.22	9.08	8.52	7.57	6.81	5.68	5.11	4.54	3.97	3.41	2.84
1	11.55	10.40	9.24	8.67	7.80	6.93	5.78	5.20	4.62	4.04	3.47	2.89
1¼	11.75	10.58	9.40	8.82	7.85	6.05	5.88	5.29	4.70	4.11	3.53	2.94
1½	11.95	10.76	9.56	8.97	7.97	6.17	5.98	5.38	4.78	4.18	3.59	2.99
1¾	12.90	11.61	10.32	9.68	8.60	7.74	6.45	5.81	5.16	4.52	3.87	3.23
2	13.80	12.42	11.04	10.35	9.20	8.28	6.90	6.21	5.52	4.83	4.14	3.45
2¼	14.85	13.37	11.88	11.14	9.90	8.91	7.43	6.68	5.94	5.20	4.46	3.71
2½	16.00	14.40	12.80	12.00	10.67	9.60	8.00	7.20	6.40	5.60	4.80	4.00
2¾	17.15	15.44	13.72	12.87	11.45	10.29	8.58	7.72	6.86	6.00	5.15	4.29
3	18.25	16.43	14.60	13.69	12.17	10.95	9.13	8.21	7.30	6.39	5.48	4.56
3¼	19.75	17.78	15.80	14.82	13.17	11.85	9.88	8.89	7.90	6.91	5.93	4.94
3½	21.20	19.08	16.96	15.90	14.14	12.72	10.60	9.54	8.48	7.42	6.36	5.30
3¾	22.70	20.43	18.16	17.03	15.13	13.60	11.35	10.22	9.08	7.95	6.81	5.68
4	24.20	21.78	19.36	18.15	16.13	14.52	12.10	10.89	9.68	8.47	7.26	6.05

3½	12.45	11.21	9.96	9.35	8.30	7.47	6.23	5.60	4.98	4.36	3.74	3.11
3¾	13.25	11.93	10.60	9.94	8.82	7.95	6.63	5.96	5.30	4.64	3.98	3.31
4	14.00	12.60	11.20	10.50	9.33	8.40	7.00	6.30	5.60	4.90	4.20	3.50

3¾	22.70	20.43	18.16	17.03	15.13	13.60	11.35	10.22	9.08	7.95	6.81	5.68
4	24.20	21.78	19.36	18.15	16.13	14.52	12.10	10.89	9.68	8.47	7.26	6.05

SQUARE HEAD SET SCREWS—Round or Cup Points

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions. **List prices are per 100** as adopted Sept. 1, 1932.

5/8 INCH DIAMETER

Lgth.	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
¾	11.55	10.40	9.24	8.67	7.70	6.93	5.78	5.20	4.62	4.04	3.47	2.89
⅞	11.75	10.58	9.40	8.82	7.84	7.05	5.88	5.29	4.70	4.11	3.53	2.94
1	11.95	10.76	9.56	8.97	7.98	7.17	5.98	5.38	4.78	4.18	3.59	2.99
1¼	12.15	10.94	9.72	9.10	8.10	7.29	6.08	5.47	4.86	4.25	3.65	3.04
1½	12.35	11.12	9.88	9.27	8.24	7.41	6.18	5.56	4.94	4.32	3.71	3.09
1¾	13.30	11.97	10.64	9.98	8.87	7.98	6.65	5.99	5.32	4.66	3.99	3.33
2	14.20	12.78	11.36	10.65	9.47	8.52	7.10	6.39	5.68	4.97	4.26	3.55
2¼	15.30	13.77	12.24	11.48	10.20	9.18	7.65	6.89	6.12	5.36	4.59	3.83
2½	16.50	14.85	13.20	12.38	11.00	9.90	8.25	7.43	6.60	5.78	4.95	4.13
2¾	17.65	15.89	14.12	13.24	11.77	10.59	8.83	7.94	7.06	6.18	5.30	4.41
3	18.85	16.97	15.08	14.14	12.57	11.31	9.43	8.48	7.54	6.60	5.66	4.71
3¼	20.40	18.36	16.32	15.30	13.60	12.24	10.20	9.18	8.16	7.14	6.12	5.10
3½	21.90	19.71	17.52	16.43	14.60	13.14	10.95	9.86	8.76	7.67	6.57	5.48
3¾	23.30	20.97	18.64	17.48	15.53	13.98	11.65	10.49	9.32	8.16	6.99	5.83
4	24.85	22.37	19.88	18.64	16.57	14.91	12.43	11.18	9.94	8.70	7.46	6.21
4¼	25.40	22.86	20.32	19.05	16.94	15.24	12.70	11.43	10.16	8.89	7.62	6.35
4½	27.95	25.16	22.36	20.97	18.64	16.77	13.98	12.58	11.18	9.78	8.39	6.99

7/8 INCH DIAMETER

Lgth.	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1¼	35.70	32.13	28.56	26.78	23.80	21.42	17.85	16.07	14.28	12.50	10.71	8.93
1½	36.20	32.58	28.96	27.15	24.13	21.72	18.10	16.29	14.48	12.67	10.86	9.05
1¾	36.70	33.03	29.36	27.53	24.47	22.02	18.35	16.52	14.68	12.85	11.01	9.18
2	37.20	33.48	29.76	27.90	24.80	22.32	18.60	16.74	14.88	13.02	11.16	9.30
2¼	39.80	35.82	31.84	29.85	26.53	23.88	19.90	17.91	15.92	13.93	11.94	9.95
2½	42.30	38.07	33.84	31.73	28.20	25.38	21.15	19.04	16.92	14.81	12.69	10.58
2¾	44.80	40.32	35.84	33.60	29.87	26.88	22.40	20.16	17.92	15.68	13.44	11.20
3	47.40	42.66	37.92	35.55	31.60	28.44	23.70	21.33	18.96	16.59	14.22	11.85
3¼	50.00	45.00	40.00	37.50	33.34	30.00	25.00	22.50	20.00	17.50	15.00	12.50
3½	52.80	47.52	42.24	39.60	35.20	31.68	26.40	23.76	21.12	18.48	15.84	13.20
3¾	55.60	50.04	44.48	41.70	37.07	33.36	27.80	25.02	22.24	19.46	16.68	13.90
4	58.25	52.43	46.60	43.69	38.84	34.95	29.13	26.21	23.30	20.39	17.48	14.56
4¼	61.15	55.04	48.92	45.86	40.77	36.69	30.58	27.52	24.46	21.40	18.35	15.29
4½	63.85	57.47	51.09	47.89	42.57	38.31	31.93	28.73	25.54	22.35	19.16	15.96
4¾	66.70	60.03	53.36	50.03	44.47	40.02	33.35	30.02	26.68	23.35	20.01	16.68
5	69.60	62.64	55.68	52.20	46.40	41.76	34.80	31.32	27.84	24.36	20.88	17.40

3/4 INCH DIAMETER

Lgth.	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1	21.10	18.99	16.88	15.83	14.07	12.66	10.55	9.50	8.44	7.39	6.33	5.28
1¼	21.50	19.35	17.20	16.13	14.34	12.90	10.75	9.68	8.60	7.53	6.45	5.38
1½	21.90	19.71	17.52	16.43	14.60	13.14	10.95	9.86	8.76	7.67	6.57	5.48
1¾	22.30	20.07	17.84	16.73	14.87	13.38	11.15	10.04	8.92	7.81	6.69	5.58
2	22.70	20.43	18.16	17.03	15.13	13.62	11.35	10.22	9.08	7.95	6.81	5.68
2¼	24.40	21.96	19.52	18.30	16.27	14.64	12.20	10.98	9.76	8.54	7.32	6.10
2½	26.10	23.49	20.88	19.58	17.40	15.66	13.05	11.75	10.44	9.14	7.83	6.53
2¾	27.80	25.02	22.24	20.85	18.54	16.68	13.90	12.51	11.12	9.73	8.34	6.95
3	29.35	26.42	23.48	22.02	19.57	17.61	14.68	13.21	11.74	10.27	8.81	7.34
3¼	31.30	28.17	25.04	23.53	20.87	18.78	15.65	14.09	12.52	10.96	9.39	7.83
3½	33.20	29.88	26.56	24.90	22.13	19.92	16.60	14.94	13.28	11.62	9.96	8.30
3¾	35.20	31.68	28.16	26.40	23.47	21.12	17.60	15.84	14.08	12.32	10.56	8.80
4	37.10	33.39	29.68	27.83	24.73	22.26	18.55	16.70	14.84	12.99	11.13	9.28
4¼	39.50	35.55	31.60	29.63	26.33	23.70	19.75	17.78	15.80	13.83	11.85	9.88
4½	41.85	37.67	33.48	31.39	27.90	25.11	20.93	18.83	16.74	14.65	12.56	10.46
4¾	44.35	39.92	35.48	33.27	29.57	26.61	22.18	19.96	17.74	15.52	13.31	11.09

1 INCH DIAMETER

Lgth.	List	DISCOUNTS										
		10	20	25	33⅓	40	50	55	60	65	70	75
1½	47.50	42.75	38.00	35.63	31.67	28.50	23.75	21.38	19.00	16.63	14.25	11.88
1¾	48.10	43.29	38.48	36.08	32.07	28.86	24.05	21.65	19.24	16.84	14.43	12.03
2	48.70	43.83	38.96	36.53	32.47	29.22	24.35	21.92	19.48	17.05	14.61	12.18
2¼	51.50	46.35	41.20	38.63	34.34	30.90	25.75	23.18	20.60	18.03	15.45	12.88
2½	53.35	48.02	42.68	40.01	35.57	32.01	26.68	24.01	21.34	18.67	16.01	13.34
2¾	57.20	51.48	45.76	42.90	38.14	34.32	28.60	25.74	22.88	20.02	17.16	14.30
3	59.85	53.87	47.88	44.89	39.90	35.91	29.93	26.93	23.94	20.95	17.96	14.96
3¼	63.25	56.93	50.60	47.44	42.17	37.95	31.63	28.46	25.30	22.14	19.98	15.81
3½	66.65	59.99	53.32	49.99	44.44	39.99	33.33	29.99	26.66	23.33	20.00	16.66
3¾	69.75	62.78	55.80	52.31	46.50	41.85	34.88	31.39	27.90	24.41	20.93	17.44
4	73.20	65.88	58.56	54.90	48.80	43.92	36.60	32.94	29.28	25.62	21.96	18.30
4¼	77.50	69.75	62.00	58.13	51.67	46.50	38.75	34.88	31.00	27.13	23.25	19.38
4½	82.15	73.94	65.72	61.61	54.77	49.29	41.08	36.97	32.86	28.75	24.65	20.54
4¾	86.40	77.76	69.12	64.80	57.60	51.84	43.20	38.88	34.56	30.24	25.92	21.60
5	90.85	81.77	72.68	68.14	60.57	54.51	45.43	40.88	36.34	31.80	27.26	22.71

ELEVATOR BOLTS

–WITH AMERICAN STANDARD SQUARE NUTS–

3/16 AND 1/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	3.30	2.97	2.64	2.48	2.31	2.20	1.98	1.65	1.32	.99	.83
⅞	3.45	3.11	2.76	2.59	2.42	2.30	2.07	1.73	1.38	1.04	.86
1	3.45	3.11	2.76	2.59	2.42	2.30	2.07	1.73	1.38	1.04	.86
1¼	3.60	3.24	2.88	2.70	2.52	2.40	2.16	1.80	1.44	1.08	.90
1½	3.75	3.38	3.00	2.81	2.63	2.50	2.25	1.88	1.50	1.13	.94
1¾	3.90	3.51	3.12	2.93	2.73	2.60	2.34	1.95	1.56	1.17	.98
2	4.05	3.65	3.24	3.04	2.84	2.70	2.43	2.03	1.62	1.22	1.01
2¼	4.20	3.78	3.36	3.15	2.94	2.80	2.52	2.10	1.68	1.26	1.05
2½	4.35	3.92	3.48	3.26	3.05	2.90	2.61	2.18	1.74	1.31	1.09
2¾	4.50	4.05	3.60	3.38	3.15	3.00	2.70	2.25	1.80	1.35	1.13
3	4.65	4.19	3.72	3.49	3.26	3.10	2.79	2.33	1.86	1.40	1.16

3/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	6.00	5.40	4.80	4.50	4.20	4.00	3.60	3.00	2.40	1.80	1.50
⅞	6.40	5.76	5.12	4.80	4.48	4.27	3.84	3.20	2.56	1.92	1.60
1	6.40	5.76	5.12	4.80	4.48	4.27	3.84	3.20	2.56	1.92	1.60
1¼	6.80	6.12	5.44	5.10	4.76	4.53	4.08	3.40	2.72	2.04	1.70
1½	7.20	6.48	5.76	5.40	5.04	4.80	4.32	3.60	2.88	2.16	1.80
1¾	7.60	6.84	6.08	5.70	5.32	5.07	4.56	3.80	3.04	2.28	1.90
2	8.00	7.20	6.40	6.00	5.60	5.33	4.80	4.00	3.20	2.40	2.00
2¼	8.40	7.56	6.72	6.30	5.88	5.60	5.04	4.20	3.36	2.52	2.27
2½	8.80	7.92	7.04	6.60	6.16	5.87	5.28	4.40	3.52	2.64	2.10
2¾	9.20	8.28	7.36	6.90	6.44	6.13	5.52	4.60	3.68	2.76	2.20
3	9.60	8.64	7.68	7.20	6.72	6.40	5.76	4.80	3.84	2.88	2.40

5/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	4.50	4.05	3.60	3.38	3.15	3.00	2.70	2.25	1.80	1.35	1.13
⅞	4.75	4.28	3.80	3.56	3.33	3.17	2.85	2.38	1.90	1.43	1.19
1	4.75	4.28	3.80	3.56	3.33	3.17	2.85	2.38	1.90	1.43	1.19
1¼	5.00	4.50	4.00	3.75	3.50	3.33	3.00	2.50	2.00	1.50	1.25
1½	5.25	4.73	4.20	3.94	3.68	3.50	3.15	2.63	2.10	1.58	1.31
1¾	5.50	4.95	4.40	4.13	3.85	3.67	3.30	2.75	2.20	1.65	1.38
2	5.75	5.18	4.60	4.31	4.03	3.83	3.45	2.88	2.30	1.73	1.44
2¼	6.00	5.40	4.80	4.50	4.20	4.00	3.60	3.00	2.40	1.80	1.50
2½	6.25	5.63	5.00	4.69	4.38	4.17	3.75	3.13	2.50	1.88	1.56
2¾	6.50	5.85	5.20	4.88	4.55	4.33	3.90	3.25	2.60	1.95	1.63
3	6.75	6.08	5.40	5.06	4.73	4.50	4.05	3.38	2.70	2.03	1.69

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 3/8-inch diameter elevator bolts, 1½ inches in length, find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of $4.32 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted September 1, 1932.

CAP AND SET SCREWS—WEIGHTS AND PACKING

Cold-forged Hollow Set Screws

Diameter (Inches)	No. 10		¼		5/16		3/8		7/16		½		9/16		⅝		¾		⅞		1	
Length (Inches)	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.
3/16	100	2	100	3	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....
1/4	100	3	100	4	100	6	100	11	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....
5/16	100	4	100	5	100	8	100	12	100	1— 2	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....
3/8	100	5	100	6	100	10	100	15	100	1— 6	100	1—10	....	.....	....	.....	....	.....	....	.....	....	.....
7/16	100	6	100	7	100	11	100	1	100	1— 8	100	1—14	100	2—12	....	.....	....	.....	....	.....	....	.....
1/2	100	6	100	8	100	12	100	1— 2	100	1—12	100	2	100	3	50	2— 8	....	.....	....	.....	....	.....
9/16	100	7	100	9	100	1	100	1— 4	100	1—14	100	2— 4	50	1—11	50	2—10	....	.....	....	.....	....	.....
5/8	100	7	100	10	100	14	100	1— 5	100	2	100	2— 6	50	1—13	50	2—12	....	.....	....	.....	....	.....
3/4	100	8	100	12	100	1— 3	100	1—13	100	2— 4	100	2—12	50	2— 1	50	3— 4	50	4— 4	25	3		
7/8	100	10	100	14	100	1— 7	100	2	100	3	100	3— 8	50	2— 9	50	3—12	25	2— 8	25	3— 4		
1	100	12	100	1	100	1— 8	100	2— 5	100	3— 4	100	4	50	3	50	4— 4	25	2—12	25	3—12		
1 1/4	100	1	100	1— 4	100	2	100	3	100	4	100	4—12	50	3—14	50	5— 8	25	3— 8	25	4—10		
1 1/2	....	.....	100	1— 9	100	2— 8	100	3—10	100	4—14	100	6	50	4—14	50	6— 8	25	4— 4	25	5—14		
1 3/4	....	.....	100	1—12	100	2—13	100	4— 4	100	5— 8	50	3—12	50	5—11	50	8	25	5	25	6— 8		
2	....	.....	100	2	100	3— 5	100	4—12	50	3— 5	50	4— 4	50	6— 8	25	4—12	25	6— 4	25	7—12		
2 1/4	....	.....	100	2— 4	100	3—10	100	5— 8	50	3—12	50	4—11	50	7— 8	25	5— 4	25	6—14	25	9		
2 1/2	....	.....	100	2— 8	100	4	100	6— 2	50	4— 2	50	5— 8	50	8— 8	25	6	25	8	25	9—12		
2 3/4	....	.....	100	2—12	100	4—10	100	6—10	....	.....	50	6	50	9— 8	25	6—12	25	9	25	11		
3	....	.....	100	3— 2	100	5	100	7— 4	....	.....	50	6— 5	50	10— 8	25	7— 8	25	10	25	12—12		

Cold-forged Socket Head Cap Screws

Diameter (Inches)	No. 10		¼		5/16		3/8		7/16		½		9/16		⅝		¾		⅞		1	
Length (Inches)	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.	Quan.	Weight Lb. Oz.
3/8	100	10	100	1— 6	100	2— 1	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....
1/2	100	12	100	1— 8	100	2— 4	100	3— 8	100	5	100	8	....	.....	....	.....	....	.....	....	.....	....	.....
5/8	100	14	100	1—10	100	2— 7	100	3—14	100	5— 8	100	8—10	....	.....	....	.....	....	.....	....	.....	....	.....
3/4	100	15	100	1—12	100	2—10	100	4— 4	100	6	100	9— 4	....	.....	....	.....	....	.....	....	.....	....	.....
7/8	100	1— ½	100	1—14	100	2—13	100	4—10	100	6— 8	100	9—14	....	.....	....	.....	....	.....	....	.....	....	.....
1	100	1— 2	100	2	100	3	100	5	100	7	100	10— 8	50	8— 8	....	.....	....	.....	....	.....	....	.....
1 1/4	100	1— 5	100	2— 3	100	3— 8	100	5—12	100	8	100	11—12	50	9— 8	50	14	....	.....	....	.....	....	.....
1 1/2	100	1— 8	100	2—10	100	4	100	6—12	100	8—14	100	13	50	10— 4	25	7—12	....	.....	....	.....	....	.....
1 3/4	100	1—11	100	2—14	100	4— 6	100	7— 2	100	9—12	50	7	50	11— 8	25	8—10	25	12	....	.....		
2	100	1—14	100	3— 2	100	5	100	8	50	5— 6	50	7—10	50	12— 4	25	9— 4	25	13	25	17— 8		
2 1/4	....	.....	100	3— 7	100	5— 8	100	8—10	50	5—13	50	8— 6	25	6— 8	25	10	25	14— 6	25	18— 2		
2 1/2	....	.....	100	3—12	100	6	50	4—10	50	6— 4	50	9	25	7	25	10— 8	25	15	25	20		
2 3/4	....	.....	100	4	100	6— 8	50	4—12	50	6—10	50	9—10	25	7— 8	25	11— 6	25	16— 4	25	21— 9		
3	....	.....	100	4— 2	100	6—14	50	5— 4	50	7— 4	50	10— 2	25	8	25	11—14	25	16— 9	25	22— 8		
3 1/4	....	.....	50	2— 4	100	7— 4	50	5—12	50	7— 8	50	10— 8	25	8— 8	25	12—12	25	18— 2	25	23—12		
3 1/2	....	.....	50	2— 6	100	7—13	50	6	50	8— 2	50	11— 4	25	9— 2	25	13— 4	25	19— 1	25	25		
3 3/4	....	.....	50	2—11	50	4— 2	50	6— 4	50	8— 8	50	12	25	9— 8	25	13—12	25	19—11	25	26— 4		
4	....	.....	50	2—15	50	4— 8	50	6—10	50	9	50	12— 8	25	10— 2	25	14—12	25	21	25	27— 8		
4 1/4	....	.....	....	.....	....	.....	50	7— 2	....	.....	50	13—12	25	10—12	25	16	25	21—14	25	29— 1		
4 1/2	....	.....	....	.....	....	.....	50	7—10	....	.....	50	14— 4	25	11— 4	25	16— 8	25	23— 9	25	30—10		
4 3/4	....	.....	....	.....	....	.....	50	8	....	.....	50	15	25	11—12	25	17— 8	25	24	25	31— 9		
5	....	.....	....	.....	....	.....	50	8— 8	....	.....	50	15— 8	25	12— 4	25	18	25	25	25	33		
5 1/4	....	.....	....	.....	....	.....	....	.....	....	.....	50	16— 4	25	12—13	25	18—12	25	26— 4	25	34— 2		
5 1/2	....	.....	....	.....	....	.....	....	.....	....	.....	50	16—12	25	13— 4	25	19— 8	25	27— 3	25	35		
5 3/4	....	.....	....	.....	....	.....	....	.....	....	.....	50	17— 6	25	14	25	20—12	25	28— 2	25	36—10		
6	....	.....	....	.....	....	.....	....	.....	....	.....	50	18— 2	25	14— 4	25	21	25	29— 1	25	37—12		

Cold-forged Socket Head Stripper Bolts

Packing: All sizes 25 in a box.

Length		1	1¼	1½	1¾	2	2¼	2½	2¾	3	3¼	3½	3¾	4	4¼	4½	4¾	5	5½	6	6½	7
eight		Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.	Lb. Oz.
Diameter	3/8	1—4	1— 8	1—10	1—14	2— 0	2— 3	2— 6	2— 8	2—12	2—14	3— 0	3— 4	3— 8	.....	.....	.....	.....	.....	.....	.....	.....
	1/2	2—7	2—12	3— 2	3— 7	3—12	4— 1	4— 7	4—12	5— 2	5— 8	5—13	6— 2	6— 8	6—13	7— 7	7—11	7—15	.....	.....	.....	.....
	5/8	.....	4—11	5— 4	5—12	6— 4	6—12	7— 5	7—14	8— 6	9— 0	9— 8	9—15	10— 7	10—13	11—12	12— 4	12—13	14— 0	15— 8	.....	.....
	3/4	.....	....	8— 2	8—14	9—12	10— 6	11— 3	12— 1	13— 0	13—12	14— 8	15— 4	16— 0	16—14	17—10	18— 5	19— 2	20—11	22— 4	23—12	25—10

TIRE BOLTS

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on ¼-inch diameter tire bolts, 2½ inches in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of .69 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Sept. 1, 1932.

IMPORTANT!—All tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

3/16 INCH DIAMETER

Length	List	DISCOUNTS								
		10	20	25	33⅓	40	50	60	70	75
1	.60	.54	.48	.45	.40	.36	.30	.24	.18	.15
1¼	.60	.54	.48	.45	.40	.36	.30	.24	.18	.15
1½	.60	.54	.48	.45	.40	.36	.30	.24	.18	.15
1¾	.65	.59	.52	.49	.43	.39	.33	.26	.20	.16
2	.70	.63	.56	.53	.47	.42	.35	.28	.21	.18
2¼	.75	.68	.60	.56	.50	.45	.38	.30	.23	.19
2½	.80	.72	.64	.60	.53	.48	.40	.32	.24	.20
2¾	.85	.77	.68	.64	.57	.51	.43	.34	.26	.21
3	.90	.81	.72	.68	.60	.54	.45	.36	.27	.23
3¼	.95	.86	.76	.71	.63	.57	.48	.38	.29	.24
3½	1.00	.90	.80	.75	.67	.60	.50	.40	.30	.25
3¾	1.05	.95	.84	.79	.70	.63	.53	.42	.32	.26
4	1.10	.99	.88	.83	.73	.66	.55	.44	.33	.28
4¼	1.15	1.04	.92	.86	.77	.69	.58	.46	.35	.29
4½	1.20	1.08	.96	.90	.80	.72	.60	.48	.36	.30
4¾	1.25	1.13	1.00	.94	.83	.75	.63	.50	.38	.31
5	1.30	1.17	1.04	.98	.87	.78	.65	.52	.39	.33
5¼	1.35	1.22	1.08	1.01	.90	.81	.68	.54	.41	.34
5½	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.42	.35
5¾	1.45	1.31	1.16	1.09	.97	.87	.73	.58	.44	.36
6	1.50	1.35	1.20	1.13	1.00	.90	.75	.60	.45	.38

1/4 INCH DIAMETER

Length	List	DISCOUNTS								
		10	20	25	33⅓	40	50	60	70	75
1	.95	.86	.76	.71	.63	.57	.48	.38	.29	.24
1¼	.95	.86	.76	.71	.63	.57	.48	.38	.29	.24
1½	.95	.86	.76	.71	.63	.57	.48	.38	.29	.24
1¾	1.00	.90	.80	.75	.67	.60	.50	.40	.30	.25
2	1.05	.95	.84	.79	.70	.63	.53	.42	.32	.26
2¼	1.10	.99	.88	.83	.73	.66	.55	.44	.33	.28
2½	1.15	1.04	.92	.86	.77	.69	.58	.46	.35	.29
2¾	1.20	1.08	.96	.90	.80	.72	.60	.48	.36	.30
3	1.25	1.13	1.00	.94	.83	.75	.63	.50	.38	.31
3¼	1.30	1.17	1.04	.98	.87	.78	.65	.52	.39	.33
3½	1.35	1.22	1.08	1.01	.90	.81	.68	.54	.41	.34
3¾	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.42	.35
4	1.45	1.31	1.16	1.09	.97	.87	.73	.58	.44	.36
4¼	1.50	1.35	1.20	1.13	1.00	.90	.75	.60	.45	.38
4½	1.55	1.40	1.24	1.16	1.03	.93	.78	.62	.47	.39
4¾	1.60	1.44	1.28	1.20	1.07	.96	.80	.64	.48	.40
5	1.65	1.49	1.32	1.24	1.10	.99	.83	.66	.50	.41
5¼	1.70	1.53	1.36	1.28	1.13	1.02	.85	.68	.51	.43
5½	1.75	1.58	1.40	1.31	1.17	1.05	.88	.70	.53	.44
5¾	1.80	1.62	1.44	1.35	1.20	1.08	.90	.72	.54	.45
6	1.85	1.67	1.48	1.39	1.23	1.11	.93	.74	.56	.46

TIRE BOLTS

IMPORTANT!—All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 60 per cent is desired on ⅜-inch diameter tire bolts, 3 inches in length—find the proper length line and follow it along until the 60 per cent column is reached where the correct net price of $1.04 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Sept. 1, 1932.

5/16 INCH DIAMETER

Length	List	DISCOUNTS								
		10	20	25	33⅓	40	50	60	70	75
1	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.42	.35
1¼	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.42	.35
1½	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.42	.35
1¾	1.40	1.26	1.12	1.05	.93	.84	.70	.56	.42	.35
2	1.47	1.32	1.18	1.10	.98	.88	.74	.59	.44	.37
2¼	1.54	1.39	1.23	1.16	1.03	.92	.77	.62	.46	.39
2½	1.61	1.45	1.29	1.21	1.07	.97	.81	.64	.48	.40
2¾	1.68	1.51	1.34	1.26	1.12	1.01	.84	.67	.50	.42
3	1.75	1.58	1.40	1.31	1.17	1.05	.88	.70	.53	.44
3¼	1.82	1.64	1.46	1.37	1.21	1.09	.91	.73	.55	.46
3½	1.89	1.70	1.51	1.42	1.26	1.13	.95	.76	.57	.47
3¾	1.96	1.76	1.57	1.47	1.31	1.18	.98	.78	.59	.49
4	2.03	1.83	1.62	1.52	1.35	1.22	1.02	.81	.61	.51
4¼	2.10	1.89	1.68	1.58	1.40	1.26	1.05	.84	.63	.53
4½	2.17	1.95	1.74	1.63	1.45	1.30	1.09	.87	.65	.54
4¾	2.24	2.02	1.79	1.68	1.49	1.34	1.12	.90	.67	.56
5	2.31	2.08	1.85	1.73	1.54	1.39	1.16	.92	.69	.58
5¼	2.38	2.14	1.90	1.79	1.59	1.43	1.19	.95	.71	.60
5½	2.45	2.21	1.96	1.84	1.63	1.47	1.23	.98	.74	.61
5¾	2.52	2.27	2.02	1.89	1.68	1.51	1.26	1.01	.76	.63
6	2.59	2.33	2.07	1.94	1.73	1.55	1.30	1.04	.78	.65

3/8 INCH DIAMETER

Length	List	DISCOUNTS								
		10	20	25	33⅓	40	50	60	70	75
1	2.20	1.98	1.76	1.65	1.47	1.32	1.10	.88	.66	.55
1¼	2.20	1.98	1.76	1.65	1.47	1.32	1.10	.88	.66	.55
1½	2.20	1.98	1.76	1.65	1.47	1.32	1.10	.88	.66	.55
1¾	2.20	1.98	1.76	1.65	1.47	1.32	1.10	.88	.66	.55
2	2.20	1.98	1.76	1.65	1.47	1.32	1.10	.88	.66	.55
2¼	2.30	2.07	1.84	1.73	1.53	1.38	1.15	.92	.69	.58
2½	2.40	2.16	1.92	1.80	1.60	1.44	1.20	.96	.72	.60
2¾	2.50	2.25	2.00	1.88	1.67	1.50	1.25	1.00	.75	.63
3	2.60	2.34	2.08	1.95	1.73	1.56	1.30	1.04	.78	.65
3¼	2.70	2.43	2.16	2.03	1.80	1.62	1.35	1.08	.81	.68
3½	2.80	2.52	2.24	2.10	1.87	1.68	1.40	1.12	.84	.70
3¾	2.90	2.61	2.32	2.18	1.93	1.74	1.45	1.16	.87	.73
4	3.00	2.70	2.40	2.25	2.00	1.80	1.50	1.20	.90	.75
4¼	3.10	2.79	2.48	2.33	2.07	1.86	1.55	1.24	.93	.78
4½	3.20	2.88	2.56	2.40	2.13	1.92	1.60	1.28	.96	.80
4¾	3.30	2.97	2.64	2.48	2.20	1.98	1.65	1.32	.99	.83
5	3.40	3.06	2.72	2.55	2.27	2.04	1.70	1.36	1.02	.85
5¼	3.50	3.15	2.80	2.63	2.33	2.10	1.75	1.40	1.05	.88
5½	3.60	3.24	2.88	2.70	2.40	2.16	1.80	1.44	1.08	.90
5¾	3.70	3.33	2.96	2.78	2.47	2.22	1.85	1.48	1.11	.93
6	3.80	3.42	3.04	2.85	2.53	2.28	1.90	1.52	1.14	.95

STEP BOLTS

Large Heads—Finished Points—Black Finish—With American Standard Square Nuts

IMPORTANT!—All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

This chart provides a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 5/16-inch diameter bolts, 2½ inches in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of $3.12 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Aug. 11, 1931.

3/16 AND 1/4 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	3.00	2.70	2.40	2.25	2.10	2.00	1.80	1.50	1.20	.90	.75
1¼	3.15	2.84	2.52	2.36	2.21	2.10	1.89	1.58	1.26	.95	.79
1½	3.30	2.97	2.64	2.48	2.31	2.20	1.98	1.65	1.32	.99	.83
1¾	3.45	3.11	2.76	2.59	2.42	2.30	2.07	1.73	1.38	1.04	.86
2	3.60	3.24	2.88	2.70	2.52	2.40	2.16	1.80	1.44	1.08	.90
2¼	3.75	3.38	3.00	2.81	2.63	2.50	2.25	1.88	1.50	1.13	.94
2½	3.90	3.51	3.12	2.93	2.73	2.60	2.34	1.95	1.56	1.17	.98
2¾	4.05	3.65	3.24	3.04	2.83	2.70	2.43	2.03	1.62	1.22	1.01
3	4.20	3.78	3.36	3.15	2.94	2.80	2.52	2.10	1.68	1.26	1.05
3¼	4.35	3.92	3.48	3.26	3.05	2.90	2.61	2.18	1.74	1.31	1.09
3½	4.50	4.05	3.60	3.38	3.15	3.00	2.70	2.25	1.80	1.35	1.13
3¾	4.65	4.19	3.72	3.49	3.26	3.10	2.79	2.33	1.86	1.40	1.16
4	4.80	4.32	3.84	3.60	3.36	3.20	2.88	2.40	1.92	1.44	1.20
4¼	4.95	4.46	3.96	3.71	3.47	3.30	2.97	2.48	1.98	1.49	1.24
4½	5.10	4.59	4.08	3.83	3.57	3.40	3.06	2.55	2.04	1.53	1.28
4¾	5.25	4.73	4.20	3.94	3.68	3.50	3.15	2.63	2.10	1.58	1.31
5	5.40	4.86	4.32	4.05	3.78	3.60	3.24	2.70	2.16	1.62	1.35
5½	5.70	5.13	4.56	4.28	3.99	3.80	3.42	2.85	2.28	1.71	1.43
6	6.00	5.40	4.80	4.50	4.20	4.00	3.60	3.00	2.40	1.80	1.50

5/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	4.00	3.60	3.20	3.00	2.80	2.67	2.40	2.00	1.60	1.20	1.00
1¼	4.20	3.78	3.36	3.15	2.94	2.80	2.52	2.10	1.68	1.26	1.05
1½	4.40	3.96	3.52	3.30	3.08	2.93	2.64	2.20	1.76	1.32	1.10
1¾	4.60	4.14	3.68	3.45	3.22	3.07	2.76	2.30	1.84	1.38	1.15
2	4.80	4.32	3.84	3.60	3.36	3.20	2.88	2.40	1.92	1.44	1.20
2¼	5.00	4.50	4.00	3.75	3.50	3.33	3.00	2.50	2.00	1.50	1.25
2½	5.20	4.68	4.16	3.90	3.64	3.47	3.12	2.60	2.08	1.56	1.30
2¾	5.40	4.86	4.32	4.05	3.78	3.60	3.24	2.70	2.16	1.62	1.35
3	5.60	5.04	4.48	4.20	3.92	3.73	3.36	2.80	2.24	1.68	1.40
3¼	5.80	5.22	4.64	4.35	4.06	3.87	3.48	2.90	2.32	1.74	1.45
3½	6.00	5.40	4.80	4.50	4.20	4.00	3.60	3.00	2.40	1.80	1.50
3¾	6.20	5.58	4.96	4.65	4.34	4.13	3.72	3.10	2.48	1.86	1.55
4	6.40	5.76	5.12	4.80	4.48	4.27	3.84	3.20	2.56	1.92	1.60
4¼	6.60	5.94	5.28	4.95	4.62	4.40	3.96	3.30	2.64	1.98	1.65
4½	6.80	6.12	5.44	5.10	4.76	4.53	4.08	3.40	2.72	2.04	1.70
4¾	7.00	6.30	5.60	5.25	4.90	4.67	4.20	3.50	2.80	.210	1.75
5	7.20	6.48	5.76	5.40	5.04	4.80	4.32	3.60	2.88	2.16	1.80
5½	7.60	6.84	6.08	5.70	5.32	5.07	4.56	3.80	3.04	2.28	1.90
6	8.00	7.20	6.40	6.00	5.60	5.33	4.80	4.00	3.20	2.40	2.00

STEP BOLTS

Large Heads—Finished Points—Black Finish

With American Standard Square Nuts

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

This chart provides a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 3/8-inch diameter step bolts, 2 3/4 inches in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of $4.65 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Aug. 11, 1931.

7/16 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	9.00	8.10	7.20	6.75	6.30	6.00	5.40	4.50	3.60	2.70	2.25
1¼	9.30	8.37	7.44	6.98	6.51	6.20	5.58	4.65	3.72	2.79	2.33
1½	9.60	8.64	7.68	7.20	6.72	6.40	5.76	4.80	3.84	2.88	2.40
1¾	9.90	8.91	7.92	7.43	6.93	6.60	5.94	4.95	3.96	2.97	2.48
2	10.20	9.18	8.16	7.65	7.14	6.80	6.12	5.10	4.08	3.06	2.55
2¼	10.50	9.45	8.40	7.88	7.35	7.00	6.30	5.25	4.20	3.15	2.63
2½	10.80	9.72	8.64	8.10	7.56	7.20	6.48	5.40	4.32	3.24	2.70
2¾	11.10	9.99	8.88	8.33	7.77	7.40	6.66	5.55	4.44	3.33	2.78
3	11.40	10.26	9.12	8.55	7.98	7.60	6.84	5.70	4.56	3.42	2.85
3¼	11.70	10.53	9.36	8.78	8.19	7.80	7.02	5.85	4.68	3.51	2.93
3½	12.00	10.80	9.60	9.00	8.40	8.00	7.20	6.00	4.80	3.60	3.00
3¾	12.30	11.07	9.84	9.23	8.61	8.20	7.38	6.15	4.92	3.69	3.08
4	12.60	11.34	10.08	9.45	8.82	8.40	7.56	6.30	5.04	3.78	3.15
4¼	12.90	11.61	10.32	9.68	9.03	8.60	7.74	6.45	5.16	3.87	3.23
4½	13.20	11.88	10.56	9.90	9.24	8.80	7.92	6.60	5.28	3.96	3.30
4¾	13.50	12.15	10.80	10.13	9.45	9.00	8.10	6.75	5.40	4.05	3.38
5	13.80	12.42	11.04	10.35	9.66	9.20	8.28	6.90	5.52	4.14	3.45
5½	14.40	12.96	11.52	10.80	10.08	9.60	8.64	7.20	5.76	4.32	3.60
6	15.00	13.50	12.00	11.25	10.50	10.00	9.00	7.50	6.00	4.50	3.75

3/8 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	6.00	5.40	4.80	4.50	4.20	4.00	3.60	3.00	2.40	1.80	1.50
1¼	6.25	5.63	5.00	4.69	4.38	4.17	3.75	3.13	2.50	1.88	1.56
1½	6.50	5.85	5.20	4.88	4.55	4.33	3.90	3.25	2.60	1.95	1.63
1¾	6.75	6.08	5.40	5.06	4.73	4.50	4.05	3.38	2.70	2.03	1.69
2	7.00	6.30	5.60	5.25	4.90	4.67	4.20	3.50	2.80	2.10	1.75
2¼	7.25	6.53	5.80	5.44	5.08	4.83	4.35	3.63	2.90	2.18	1.81
2½	7.50	6.75	6.00	5.63	5.25	5.00	4.50	3.75	3.00	2.25	1.88
2¾	7.75	6.98	6.20	5.81	5.43	5.17	4.65	3.88	3.10	2.33	1.94
3	8.00	7.20	6.40	6.00	5.60	5.33	4.80	4.00	3.20	2.40	2.00
3¼	8.25	7.43	6.60	6.19	5.78	5.50	4.95	4.13	3.30	2.48	2.06
3½	8.50	7.65	6.80	6.38	5.95	5.67	5.10	4.25	3.40	2.55	2.13
3¾	8.75	7.88	7.00	6.56	6.13	5.83	5.25	4.38	3.50	2.63	2.19
4	9.00	8.10	7.20	6.75	6.30	6.00	5.40	4.50	3.60	2.70	2.25
4¼	9.25	8.33	7.40	6.94	6.48	6.17	5.55	4.63	3.70	2.78	2.31
4½	9.50	8.55	7.60	7.13	6.65	6.33	5.70	4.75	3.80	2.85	2.38
4¾	9.75	8.78	7.80	7.31	6.83	6.50	5.85	4.88	3.90	2.93	2.44
5	10.00	9.00	8.00	7.50	7.00	6.67	6.00	5.00	4.00	3.00	2.50
5½	10.50	9.45	8.40	7.88	7.35	7.00	6.30	5.25	4.20	3.15	2.63
6	11.00	9.90	8.80	8.25	7.70	7.33	6.60	5.50	4.40	3.30	2.75

STEP BOLTS—Concluded

1/2 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	11.00	9.90	8.80	8.25	7.70	7.33	6.60	5.50	4.40	3.30	2.75
1¼	11.40	10.26	9.12	8.55	7.98	7.60	6.84	5.70	4.56	3.42	2.85
1½	11.80	10.62	9.44	8.85	8.26	7.87	7.08	5.90	4.72	3.54	2.95
1¾	12.20	10.98	9.76	9.15	8.54	8.26	7.32	6.10	4.88	3.66	3.05
2	12.60	11.34	10.08	9.45	8.82	8.40	7.56	6.30	5.04	3.78	3.15
2¼	13.00	11.70	10.40	9.75	9.10	8.67	7.80	6.50	5.20	3.90	3.25
2½	13.40	12.06	10.72	10.05	9.38	8.93	8.04	6.70	5.36	4.02	3.35
2¾	13.80	12.42	11.04	10.35	9.66	9.20	8.28	6.90	5.52	4.14	3.45
3	14.20	12.78	11.36	10.65	9.94	9.47	8.52	7.10	5.68	4.26	3.55
3¼	14.60	13.14	11.68	10.95	10.22	9.73	8.76	7.30	5.84	4.38	3.65
3½	15.00	13.50	12.00	11.25	10.50	10.00	9.00	7.50	6.00	4.50	3.75
3¾	15.40	13.86	12.32	11.55	10.78	10.27	9.24	7.70	6.16	4.62	3.85
4	15.80	14.22	12.64	11.85	11.06	10.53	9.48	7.90	6.32	4.74	3.95
4¼	16.20	14.58	12.96	12.15	11.34	10.80	9.72	8.10	6.48	4.86	4.05
4½	16.60	14.94	13.28	12.45	11.62	11.23	9.96	8.30	6.64	4.98	4.15
4¾	17.00	15.30	13.60	12.75	11.90	13.03	10.20	8.50	6.80	5.10	4.25
5	17.40	15.66	13.92	13.05	12.18	11.60	10.44	8.70	6.96	5.22	4.35
5½	18.20	16.38	14.56	13.65	12.74	12.13	10.92	9.10	7.28	5.46	4.55
6	19.00	17.10	15.20	14.25	13.30	12.67	11.40	9.50	7.60	5.70	4.75

This chart provides a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 1/2-inch diameter step bolts, 2 1/2 inches in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of $8.04 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Aug. 11, 1931.

NUT DIMENSIONS AND THREADS PER INCH

Effective April 1, 1927

Bolt Size	American Std. Heavy			American Std. Reg.		American Std. Light			Threads per in.	
	Width	Thickness		Width	Thickness	Width	Thickness			
		A.S.H.	A.S.H. Jam				S.A.E.	Jam S.A.F.	American	S.A.E.
5/16	3/8	5/16	—	3/8	.165	—	—	—	24	32
1/4	1/2	1/4	3/16	7/16	7/32	7/16	7/32	5/32	20	28
5/16	19/32	5/16	7/32	9/16	17/64	1/2	17/64	3/16	18	24
3/8	11/16	3/8	1/4	5/8	21/64	9/16	21/64	1/4	16	24
7/16	25/32	7/16	9/32	3/4	3/8	5/8	3/8	1/4	14	20
1/2	7/8	1/2	5/16	13/16	7/16	3/4	7/16	5/16	13	20
9/16	31/32	9/16	11/32	7/8	1/2	7/8	31/64	5/16	12	18
5/8	1 1/16	5/8	3/8	1	35/64	15/16	35/64	3/8	11	18
3/4	1 1/4	3/4	7/16	1 1/8	21/32	1 1/16	21/32	3/8	10	16
7/8	1 17/16	7/8	1/2	1 5/16	49/64	1 1/4	49/64	7/16	9	14
1	1 5/8	1	9/16	1 1/2	7/8	1 7/16	7/8	1/2	8	14
1 1/8	1 13/16	1 1/8	5/8	1 11/16	1	1 5/8	63/64	9/16	7	12
1 1/4	2	1 1/4	3/4	1 7/8	1 3/32	1 13/16	1 3/32	5/8	7	12
1 3/8	2 3/16	1 3/8	13/16	—	—	2	1 13/64	3/4	6	12
1 1/2	2 3/8	1 1/2	7/8	—	—	2 3/16	1 5/16	13/16	6	12
1 5/8	2 9/16	1 5/8	15/16	—	—	—	—	—	5 1/2	—
1 3/4	2 3/4	1 3/4	1	—	—	—	—	—	5	—
1 7/8	2 15/16	1 7/8	1 1/16	—	—	—	—	—	5	—
2	3 1/8	2	1 3/8	—	—	—	—	—	4 1/2	—
2 1/4	3 1/2	2 1/4	—	—	—	—	—	—	4 1/2	—
2 1/2	3 7/8	2 1/2	—	—	—	—	—	—	4	—
2 3/4	4 1/4	2 3/4	—	—	—	—	—	—	4	—
3	4 5/8	3	—	—	—	—	—	—	4	—
3 1/4	5	3 1/4	—	—	—	—	—	—	4	—
3 1/2	5 3/8	3 1/2	—	—	—	—	—	—	4	—
3 3/4	5 3/4	3 3/4	—	—	—	—	—	—	4	—
4	6 1/8	4	—	—	—	—	—	—	4	—

TAP BOLTS –With American Standard Square Heads–

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are per 100 as adopted Sept. 1, 1932

3/16 AND 1/4 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	1.60	1.44	1.28	1.20	1.12	1.07	.96	.80	.64	.48	.40
1	1.80	1.62	1.44	1.35	1.26	1.20	1.08	.90	.72	.54	.45
1¼	2.00	1.80	1.60	1.50	1.40	1.34	1.20	1.00	.80	.60	.50
1½	2.20	1.98	1.76	1.65	1.54	1.47	1.32	1.10	.88	.66	.55
1¾	2.40	2.16	1.92	1.80	1.68	1.60	1.44	1.20	.96	.72	.60
2	2.60	2.34	2.08	1.95	1.82	1.74	1.56	1.30	1.04	.78	.65
2¼	2.80	2.52	2.24	2.10	1.96	1.87	1.68	1.40	1.12	.84	.70
2½	3.00	2.70	2.40	2.25	2.10	2.00	1.80	1.50	1.20	.90	.75
2¾	3.20	2.88	2.56	2.40	2.24	2.14	1.92	1.60	1.28	.96	.80
3	3.40	3.06	2.72	2.55	2.38	2.27	2.04	1.70	1.36	1.02	.85

3/8 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	2.50	2.25	2.00	1.88	1.75	1.67	1.50	1.25	1.00	.75	.63
1	2.85	2.57	2.28	2.14	2.00	1.90	1.71	1.43	1.14	.86	.71
1¼	3.20	2.88	2.56	2.40	2.24	2.14	1.92	1.60	1.28	.96	.80
1½	3.55	3.20	2.84	2.67	2.49	2.37	2.13	1.78	1.42	1.07	.89
1¾	3.90	3.51	3.12	2.93	2.73	2.60	2.34	1.95	1.56	1.17	.98
2	4.25	3.83	3.40	3.19	2.98	2.84	2.55	2.13	1.70	1.28	1.06
2¼	4.60	4.14	3.68	3.45	3.22	3.07	2.76	2.30	1.84	1.38	1.15
2½	4.95	4.46	3.96	3.72	3.47	3.30	2.97	2.48	1.98	1.49	1.24
2¾	5.30	4.77	4.24	3.98	3.71	3.54	3.18	2.65	2.12	1.59	1.33
3	5.65	5.09	4.52	4.24	3.96	3.77	3.39	2.83	2.26	1.70	1.41
3¼	6.00	5.40	4.80	4.50	4.20	4.00	3.60	3.00	2.40	1.80	1.50
3½	6.35	5.72	5.08	4.77	4.45	4.24	3.81	3.18	2.54	1.91	1.59
3¾	6.70	6.03	5.36	5.03	4.69	4.47	4.02	3.35	2.68	2.01	1.68
4	7.05	6.35	5.64	5.29	4.94	4.70	4.23	3.53	2.82	2.12	1.76

5/16 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	2.10	1.89	1.68	1.58	1.47	1.40	1.26	1.05	.84	.63	.53
1	2.35	2.12	1.88	1.77	1.65	1.57	1.41	1.18	.94	.71	.59
1¼	2.60	2.34	2.08	1.95	1.82	1.74	1.56	1.30	1.04	.78	.65
1½	2.85	2.57	2.28	2.14	2.00	1.90	1.71	1.43	1.14	.86	.71
1¾	3.10	2.79	2.48	2.33	2.17	2.07	1.86	1.55	1.24	.93	.78
2	3.35	3.02	2.68	2.49	2.35	2.24	2.01	1.68	1.34	1.00	.84
2¼	3.60	3.24	2.88	2.70	2.52	2.40	2.16	1.80	1.44	1.08	.90
2½	3.85	3.47	3.08	2.89	2.70	2.57	2.31	1.93	1.54	1.16	.96
2¾	4.10	3.69	3.28	3.08	2.87	2.74	2.46	2.05	1.64	1.23	1.03
3	4.35	3.92	3.48	3.27	3.05	2.90	2.61	2.18	1.74	1.31	1.09
3¼	4.60	4.14	3.68	3.45	3.22	3.07	2.76	2.30	1.84	1.38	1.15
3½	4.85	4.37	3.88	3.64	3.40	3.24	2.91	2.43	1.94	1.46	1.21
3¾	5.10	4.59	4.08	3.83	3.57	3.40	3.06	2.55	2.04	1.53	1.28

7/16 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
¾	3.60	3.24	2.88	2.70	2.52	2.40	2.16	1.80	1.44	1.08	.90
1	4.05	3.65	3.24	3.04	2.84	2.70	2.43	2.03	1.62	1.22	1.01
1¼	4.50	4.05	3.60	3.38	3.15	3.00	2.70	2.25	1.80	1.35	1.13
1½	4.95	4.46	3.96	3.72	3.47	3.30	2.97	2.48	1.98	1.49	1.24
1¾	5.40	4.86	4.32	4.05	3.78	3.60	3.24	2.70	2.16	1.62	1.35
2	5.85	5.27	4.68	4.34	4.10	3.90	3.51	2.93	2.34	1.76	1.46
2¼	6.30	5.67	5.04	4.73	4.41	4.20	3.78	3.15	2.52	1.89	1.58
2½	6.75	6.08	5.40	5.07	4.73	4.50	4.05	3.38	2.70	2.03	1.69
2¾	7.20	6.48	5.76	5.40	5.04	4.80	4.32	3.60	2.88	2.16	1.80
3	7.65	6.89	6.12	5.74	5.36	5.10	4.59	3.83	3.06	2.30	1.91
3¼	8.10	7.29	6.48	6.08	5.67	5.40	4.86	4.05	3.24	2.43	2.03
3½	8.55	7.70	6.84	6.42	5.99	5.70	5.13	4.28	3.42	2.57	2.14
3¾	9.00	8.10	7.20	6.75	6.30	6.00	5.40	4.50	3.60	2.70	2.25
4	9.45	8.51	7.56	7.09	6.62	6.30	5.67	4.73	3.78	2.84	2.36
4¼	9.90	8.91	7.92	7.43	6.93	6.60	5.94	4.95	3.96	2.97	2.48
4½	10.35	9.32	8.28	7.77	7.25	6.90	6.21	5.18	4.14	3.11	2.59

TAP BOLTS —With American Standard Square Heads—

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 1/2-inch diameter tap bolts, 1 1/2 inches in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of $3.30 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are per 100** as adopted Sept. 1, 1932.

1/2 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	4.50	4.05	3.60	3.38	3.15	3.00	2.70	2.25	1.80	1.35	1.13
1¼	5.00	4.60	4.00	3.75	3.50	3.34	3.00	2.50	2.00	1.50	1.25
1½	5.50	4.95	4.40	4.13	3.85	3.67	3.30	2.75	2.20	1.65	1.38
1¾	6.00	5.40	4.80	4.50	4.20	4.00	3.60	3.00	2.40	1.80	1.50
2	6.50	5.85	5.20	4.88	4.55	4.34	3.90	3.25	2.60	1.95	1.63
2¼	7.00	6.30	5.60	5.25	4.90	4.67	4.20	3.50	2.80	2.10	1.75
2½	7.50	6.75	6.00	5.63	5.25	5.00	4.50	3.75	3.00	2.25	1.88
2¾	8.00	7.20	6.40	6.00	5.60	5.34	4.80	4.00	3.20	2.40	2.00
3	8.50	7.65	6.80	6.38	5.95	5.67	5.10	4.25	3.40	2.55	2.13
3¼	9.00	8.10	7.20	6.75	6.30	6.00	5.40	4.50	3.60	2.70	2.25
3½	9.50	8.55	7.60	7.13	6.65	6.34	5.70	4.75	3.80	2.85	2.38
3¾	10.00	9.00	8.00	7.50	7.00	6.67	6.00	5.00	4.00	3.00	2.50
4	10.50	9.45	8.40	7.88	7.35	7.00	6.30	5.25	4.20	3.15	2.63
4¼	11.00	9.90	8.80	8.25	7.70	7.34	6.60	5.50	4.40	3.30	2.75
4½	11.50	10.35	9.20	8.63	8.05	7.67	6.90	5.75	4.60	3.45	2.88
4¾	12.00	10.80	9.60	9.00	8.40	8.00	7.20	6.00	4.80	3.60	3.00
5	12.50	11.25	10.00	9.38	8.75	8.33	7.50	6.25	5.00	3.75	3.13

3/4 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1½	10.50	9.45	8.40	7.88	7.35	7.00	6.30	5.25	4.20	3.15	2.63
1¾	11.20	10.08	8.96	8.40	7.84	7.47	6.72	5.60	4.48	3.36	2.80
2	11.90	10.71	9.52	8.93	8.33	7.94	7.14	5.95	4.76	3.57	2.98
2¼	12.60	11.34	10.08	9.45	8.82	8.40	7.56	6.30	5.04	3.78	3.15
2½	13.70	12.33	10.96	10.28	9.59	9.14	8.22	6.85	5.48	4.11	3.43
2¾	14.40	12.96	11.52	10.80	10.08	9.60	8.64	7.20	5.76	4.32	3.60
3	15.10	13.59	12.08	11.33	10.57	10.07	9.06	7.55	6.04	4.53	3.78
3¼	15.80	14.22	12.64	11.85	11.06	10.54	9.48	7.90	6.32	4.74	3.95
3½	16.50	14.85	13.20	12.38	11.55	11.00	9.90	8.25	6.60	4.95	4.13
3¾	17.20	15.48	13.76	12.90	12.04	11.47	10.32	8.60	6.88	5.16	4.30
4	17.90	16.11	14.32	13.43	12.53	11.94	10.74	8.95	7.16	5.37	4.48
4¼	18.60	16.74	14.88	13.95	13.02	12.40	11.16	9.30	7.44	5.52	4.65
4½	19.30	17.37	15.44	14.48	13.51	12.87	11.58	9.65	7.72	5.79	4.83
4¾	20.00	18.00	16.00	15.00	14.00	13.34	12.00	10.00	8.00	6.00	5.00
5	20.70	18.63	16.56	15.53	14.49	13.80	12.42	10.35	8.28	6.21	5.18

9/16 AND 5/8 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1	7.30	6.57	5.84	5.48	5.11	4.87	4.38	3.65	2.92	2.19	1.83
1¼	7.90	7.11	6.32	5.93	5.53	5.27	4.74	3.95	3.16	2.37	1.98
1½	8.50	7.65	6.80	6.38	5.95	5.67	5.10	4.25	3.40	2.55	2.13
1¾	9.10	8.19	7.28	6.83	6.37	6.07	5.46	4.55	3.64	2.73	2.28
2	9.70	8.73	7.76	7.28	6.79	6.47	5.82	4.85	3.88	2.91	2.43
2¼	10.30	9.27	8.24	7.73	7.21	6.87	6.18	5.15	4.12	3.09	2.58
2½	10.90	9.81	8.72	8.18	7.63	7.27	6.54	5.45	4.36	3.27	2.73
2¾	11.50	10.35	9.20	8.63	8.05	7.67	6.90	5.75	4.60	3.45	2.88
3	12.10	10.89	9.68	9.08	8.47	8.07	7.26	6.05	4.84	3.63	3.03
3¼	12.70	11.43	10.16	9.53	8.89	8.47	7.62	6.35	5.08	3.81	3.18
3½	13.30	11.97	10.64	9.98	9.31	8.87	7.98	6.65	5.32	3.99	3.33
3¾	13.90	12.51	11.12	10.43	9.73	9.27	8.34	6.95	5.56	4.17	3.48
4	14.50	13.05	11.60	10.88	10.15	9.67	8.70	7.25	5.80	4.35	3.63
4¼	15.10	13.59	12.08	11.33	10.57	10.07	9.06	7.55	6.04	4.53	3.78
4½	15.70	14.13	12.56	11.78	10.99	10.47	9.42	7.85	6.28	4.71	3.93
4¾	16.30	14.67	13.04	12.23	11.41	10.87	9.78	8.15	6.52	4.89	4.08
5	16.90	15.21	13.52	12.68	11.83	11.27	10.14	8.45	6.76	5.07	4.23

7/8 INCH DIAMETER

Lgth.	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1½	15.00	13.50	12.00	11.25	10.50	10.00	9.00	7.50	6.00	4.50	3.75
1¾	15.90	14.31	12.72	11.93	11.13	10.60	9.54	7.95	6.36	4.77	3.98
2	16.80	15.12	13.44	12.60	11.76	11.20	10.08	8.40	6.72	5.04	4.20
2¼	17.70	15.93	14.16	13.28	12.39	11.80	10.62	8.85	7.08	5.31	4.43
2½	18.60	16.74	14.88	13.95	13.02	12.40	11.16	9.30	7.44	5.58	4.65
2¾	19.50	17.55	15.60	14.63	13.65	13.00	11.70	9.75	7.80	5.85	4.88
3	20.40	18.36	16.32	15.30	14.28	13.60	12.24	10.20	8.16	6.12	5.10
3¼	21.30	19.17	17.04	15.98	14.91	14.20	12.78	10.65	8.52	6.39	5.33
3½	22.20	19.98	17.76	16.65	15.54	14.80	13.32	11.10	8.88	6.66	5.55
3¾	23.10	20.79	18.48	17.33	16.17	15.40	13.86	11.55	9.24	6.93	5.78
4	24.00	21.60	19.20	18.00	16.80	16.00	14.40	12.00	9.60	7.20	6.00
4¼	24.90	22.41	19.92	18.68	17.43	16.60	14.94	12.45	9.96	7.47	6.23
4½	25.80	23.22	20.64	19.35	18.06	17.20	15.48	12.90	10.32	7.74	6.45
4¾	26.70	24.03	21.36	20.03	18.69	17.80	16.02	13.35	10.68	8.01	6.68
5	27.60	24.84	22.08	20.70	19.32	18.40	16.56	13.80	11.04	8.28	6.90

4½	15.70	14.13	12.56	11.78	10.99	10.47	9.42	7.85	6.28	4.71	3.93
4¾	16.30	14.67	13.04	12.23	11.41	10.87	9.78	8.15	6.52	4.89	4.08
5	16.90	15.21	13.52	12.68	11.83	11.27	10.14	8.45	6.76	5.07	4.23

TAP BOLTS, CONCLUDED

TAP BOLTS, CONCLUDED—1 INCH DIAMETER

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1½	20.00	18.00	16.00	15.00	14.00	13.34	12.00	10.00	8.00	6.00	5.00
1¾	21.00	18.90	16.80	15.75	14.70	14.00	12.60	10.50	8.40	6.30	5.25
2	22.00	19.80	17.60	16.50	15.40	14.67	13.20	11.00	8.80	6.60	5.50
2¼	23.00	20.70	18.40	17.25	16.10	15.34	13.80	11.50	9.20	6.90	5.75
2½	24.00	21.60	19.20	18.00	16.80	16.00	14.40	12.00	9.60	7.20	6.00
2¾	25.00	22.50	20.00	18.75	17.50	16.67	15.00	12.50	10.00	7.50	6.25
3	26.00	23.40	20.80	19.50	18.20	17.34	15.60	13.00	10.40	7.80	6.50
3¼	27.00	24.30	21.60	20.25	18.90	18.00	16.20	13.50	10.80	8.10	6.75
3½	28.00	25.20	22.40	21.00	19.60	18.67	16.80	14.00	11.20	8.40	7.00
3¾	29.00	26.10	23.20	21.75	20.30	19.34	17.40	14.50	11.60	8.70	7.25
4	30.00	27.00	24.00	22.50	21.00	20.00	18.00	15.00	12.00	9.00	7.50
4¼	31.00	27.90	24.80	23.25	21.70	20.67	18.60	15.50	12.40	9.30	7.75
4½	32.00	28.80	25.60	24.00	22.40	21.34	19.20	16.00	12.80	9.60	8.00
4¾	33.00	29.70	26.40	24.75	23.10	22.00	19.80	16.50	13.20	9.90	8.25
5	34.00	30.60	27.20	25.50	23.80	22.67	20.40	17.00	13.60	10.20	8.50

DECIMAL EQUIVALENTS

1/64 = .0156	17/64 = .2656	33/64 = .5156	49/64 = .7656
1/32 = .0312	9/32 = .2812	17/32 = .5312	25/32 = .7812
3/64 = .0468	19/64 = .2968	35/64 = .5468	51/64 = .7968
1/16 = .0625	5/16 = .3125	9/16 = .5625	13/16 = .8125
5/64 = .0781	21/64 = .3281	37/64 = .5781	53/64 = .8281
3/32 = .0937	11/32 = .3437	19/32 = .5937	27/32 = .8437
7/64 = .1093	23/64 = .3593	39/64 = .6093	55/64 = .8593
1/8 = .125	3/8 = .375	5/8 = .625	7/8 = .875
9/64 = .1406	25/64 = .3906	41/64 = .6406	57/64 = .8906
5/32 = .1562	13/32 = .4062	21/32 = .6562	29/32 = .9062
11/64 = .1718	27/64 = .4218	43/64 = .6718	59/64 = .9218
3/16 = .1875	7/16 = .4375	11/16 = .6875	15/16 = .9375
13/64 = .2031	29/64 = .4531	45/64 = .7031	61/64 = .9531
7/32 = .2187	15/32 = .4687	23/32 = .7187	31/32 = .9687
15/64 = .2343	31/64 = .4843	47/64 = .7343	63/64 = .9843
1/4 = .25	1/2 = .5	3/4 = .75	1 = 1.0

COLD FORGED BRASS CAP NUTS

MACHINE SCREW THREAD SIZES
American—National Standard

Machine Screw Size	Blank Size
No. 4-40	0
No. 6-32	0
No. 6-32	1
No. 8-32	1
No. 10-24	2
3/16"-24	
No. 10-32	2
No. 12-24	2
1/4"-20	3
5/16"-18	4
3/8"-16	5
7/16"-14	6
1/2"-13	6
5/8"-11	7

MACHINE SCREW THREAD SIZES
S.A.E. Standard

Machine Screw Size	Blank Size
1/4"-28	3
5/16"-24	4
3/8"-24	5
7/16"-20	6
1/2"-20	6

DECIMAL EQUIVALENTS

CONVERSION TABLE

DECIMAL EQUIVALENTS OF MILLIMETERS

Mm.	Inches	Mm.	Inches	Mm.	Inches	Mm.	Inches
1 =	.03937	26 =	1.02362	51 =	2.00787	76 =	2.99212
2 =	.07874	27 =	1.06299	52 =	2.04724	77 =	3.03149
3 =	.11811	28 =	1.10236	53 =	2.08661	78 =	3.07086
4 =	.15748	29 =	1.14173	54 =	2.12598	79 =	3.11023
5 =	.19685	30 =	1.18110	55 =	2.16535	80 =	3.14960
6 =	.23622	31 =	1.22047	56 =	2.20472	81 =	3.18897
7 =	.27559	32 =	1.25984	57 =	2.24409	82 =	3.22834
8 =	.31496	33 =	1.29921	58 =	2.28346	83 =	3.26771
9 =	.35433	34 =	1.33858	59 =	2.32283	84 =	3.30708
10 =	.39370	35 =	1.37795	60 =	2.36220	85 =	3.34645
11 =	.43307	36 =	1.41732	61 =	2.40157	86 =	3.38582
12 =	.47244	37 =	1.45669	62 =	2.44094	87 =	3.42519
13 =	.51181	38 =	1.49606	63 =	2.48031	88 =	3.46456
14 =	.55118	39 =	1.53543	64 =	2.51968	89 =	3.50393
15 =	.59055	40 =	1.57480	65 =	2.55905	90 =	3.54330
16 =	.62992	41 =	1.61417	66 =	2.59842	91 =	3.58267
17 =	.66929	42 =	1.65354	67 =	2.63779	92 =	3.62204
18 =	.70866	43 =	1.69291	68 =	2.67716	93 =	3.66141
19 =	.74803	44 =	1.73228	69 =	2.71653	94 =	3.70078
20 =	.78740	45 =	1.77165	70 =	2.75590	95 =	3.74015
21 =	.82677	46 =	1.81102	71 =	2.79527	96 =	3.77952
22 =	.86614	47 =	1.85039	72 =	2.83464	97 =	3.81889
23 =	.90551	48 =	1.88976	73 =	2.87401	98 =	3.85826
24 =	.94488	49 =	1.92913	74 =	2.91338	99 =	3.89763
25 =	.98425	50 =	1.96850	75 =	2.95275	100 =	3.93700

SOLID STEEL RIVETS

Round or Button, Cone, Flat, Truss or Wagon Box, Flat Countersunk, Pan, Section and Belt Heads. Old Standard or Birmingham Gage. American Standard Heads.

IMPORTANT! — All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

List prices are cents per pound as adopted May 19, 1920

DIAMETER 7/16 AND 3/8 INCH

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3¾ to 6	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
2¼ to 3½	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
1 to 2	.15	.14	.12	.11	.11	.10	.09	.08	.06	.05	.04
⅞ and ¾	.15½	.14	.12	.12	.11	.10	.09	.08	.06	.05	.04
⅝ and ½	.16	.14	.13	.12	.11	.11	.10	.08	.06	.05	.04
7/16	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
⅜	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
11/32	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
5/16	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
9/32	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05

DIAMETER 11/32 INCH

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3¾ to 6	.18½	.17	.15	.14	.13	.12	.11	.09	.07	.06	.05
2¼ to 3½	.17½	.16	.14	.13	.12	.12	.11	.09	.07	.05	.04
1 to 2	.15½	.14	.12	.12	.11	.10	.09	.08	.06	.05	.04
⅞ and ¾	.16	.14	.13	.12	.11	.11	.10	.08	.06	.05	.04
⅝ and ½	.16½	.15	.13	.12	.12	.11	.10	.08	.07	.05	.04
7/16	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
⅜	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
11/32	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
5/16	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
9/32	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05

DIAMETER 5/16 INCH

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3¾ to 6	.18½	.17	.15	.14	.13	.12	.11	.09	.07	.06	.05
2¼ to 3½	17½	.16	.14	.13	.12	.12	.11	.09	.07	.05	.04
1 to 2	.15½	.14	.12	.12	.11	.10	.09	.08	.06	.05	.04
⅞ and ¾	.16	.14	.13	.12	.11	.11	.10	.08	.06	.05	.04
⅝ and ½	.16½	.15	.13	.12	.12	.11	.10	.08	.07	.05	.04
7/16	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
⅜	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
11/32	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
5/16	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
9/32	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05

DIAMETER 1 GAGE

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3¾ to 6	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
2¼ to 3½	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
1 to 2	.16	.14	.13	.12	.11	.11	.10	.08	.06	.05	.04
⅞ and ¾	.16½	.15	.13	.12	.12	.11	.10	.08	.07	.05	.04
⅝ and ½	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
7/16	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
⅜	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
11/32	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
5/16	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
9/32	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05

DIAMETER 2 GAGE—9/32 INCH and 3 GAGE

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3¾ to 6	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
2¼ to 3½	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
1 to 2	.16	.14	.13	.12	.11	.11	.10	.08	.06	.05	.04
⅞ and ¾	.16½	.15	.13	.12	.12	.11	.10	.08	.07	.05	.04
⅝ and ½	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
7/16	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
⅜	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
11/32	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
5/16	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
9/32	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
¼	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
7/32	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05

DIAMETER 1/4 INCH

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3¾ to 6	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
2¼ to 3½	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
1 to 2	.16	.14	.13	.12	.11	.11	.10	.08	.06	.05	.04
⅞ and ¾	.16½	.15	.13	.12	.12	.11	.10	.08	.07	.05	.04
⅝ and ½	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
7/16	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
⅜	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
11/32	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
5/16	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
9/32	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
¼	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
7/32	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
3/16	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05

Simplify YOUR RIVET BUYING

ONE ORDER
ONE SHIPMENT
ONE BILLING

ANCHOR BRAND

GET THEM ALL FROM TOWNSEND

GROUP your small-goods purchases . . . send them all to Townsend . . . save time and money! • Townsend maintains the largest and most complete stock of rivets and allied items in the industry . . . available for immediate shipment. That's your guarantee of *prompt handling*. • For over 120 years, Townsend has made superior "Anchor-Brand" products. That's your guarantee of *satisfaction*. • Order everything from Townsend . . . *one* order, *one* shipment, *one* billing.

Manufacturers of:

- BELT RIVETS WITH BURRS
- BIFURCATED RIVETS
- BOILER RIVETS
- BRAKE RELINING RIVETS
- BRAZIERS RIVETS
- CLUTCH FACING RIVETS
- COOPERS RIVETS
- HAME RIVETS
- HARNESS RIVETS
- HOSE RIVETS
- SECTION RIVETS
- SPLIT RIVETS
- STRUCTURAL RIVETS
- TINNERS RIVETS
- TRUNK RIVETS
- TUBULAR RIVETS
- WAGON BOX RIVETS
- WHEEL RIVETS
- RIVETING BURRS
- STOVE BOLTS
- HINGE NAILS
- MISC. NAILS AND BRADS
- SADDLERY NAILS
- WAGON NAILS
- WEATHER STRIP NAILS
- COPPER NAILS
- BRASS ESCUTCHEON PINS

TOWNSEND COMPANY

NEW BRIGHTON, PA.

CLEARING, CHICAGO, ILL.

SOLID STEEL RIVETS

Round or Button, Cone, Flat, Truss or Wagon Box, Flat Countersunk, Pan, Section and Belt Heads. Old Standard or Birmingham Gage. American Standard Heads.

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 4 gage diameter solid steel rivets 3¾ to 6 in. in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of .13 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are cents per lb.** as adopted May 19, 1920.

DIAMETER 4 GAGE

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3¾ to 6	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
3¼ to 3½	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
1 to 2	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
⅞ and ¾	.17½	.16	.14	.13	.12	.12	.11	.09	.07	.05	.04
⅝ and ½	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
7/16	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
⅜	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
11/32	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
5/16	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
9/32	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
¼	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
7/32	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
3/16	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
5/32	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.05

DIAMETER 5 GAGE—7/32 INCH

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3¾ to 6	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
2¼ to 3½	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
1 to 2	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
⅞ and ¾	.17½	.16	.14	.13	.12	.12	.11	.09	.07	.05	.04
⅝ and ½	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
7/16	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
⅜	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
11/32	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
5/16	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
9/32	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
¼	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
7/32	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
3/16	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
5/32	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
⅛	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
3/32	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06

DIAMETER 6 GAGE

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3¾ to 6	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
2¼ to 3½	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
1 to 2	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
⅞ and ¾	.17½	.16	.14	.13	.12	.12	.11	.09	.07	.05	.04
⅝ and ½	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
7/16	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
⅜	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
11/32	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
5/16	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
9/32	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
¼	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
7/32	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
3/16	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
5/32	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
⅛	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
3/32	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07

DIAMETER 3/16 INCH

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
3¾ to 6	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
2¼ to 3½	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
1 to 2	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
⅞ to ¾	.17½	.16	.14	.13	.12	.12	.11	.09	.07	.05	.04
⅝ and ½	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
7/16	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
⅜	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
11/32	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
5/16	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
9/32	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
¼	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
7/32	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
3/16	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
5/32	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
⅛	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
3/32	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07

SOLID STEEL RIVETS

Round or Button, Cone, Flat, Truss or Wagon Box, Flat Countersunk, Pan, Section and Belt Heads. Old Standard or Birmingham Gage. American Standard Heads.

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 7 gage diameter solid steel rivets 1 to 2 in. in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of .10 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are cents per lb.** as adopted May 19, 1920.

IMPORTANT!—All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

DIAMETER 7 GAGE

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1 to 2	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
⅞ and ¾	.17½	.16	.14	.13	.12	.12	.11	.09	.07	.05	.04
⅝ and ½	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
7/16	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
⅜	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
11/32	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
5/16	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
9/32	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
¼	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
7/32	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
3/16	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
5/32	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
⅛	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
3/32	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07

DIAMETER 8 GAGE—5/32 INCH

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1 to 2	.18	.16	.14	.14	.13	.12	.11	.09	.07	.05	.05
⅞ and ¾	.18½	.17	.15	.14	.13	.12	.11	.09	.07	.06	.05
⅝ and ½	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
7/16	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
⅜	.22	.20	.18	.17	.15	.15	.13	.11	.09	.06	.06
11/32	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
5/16	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
9/32	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
¼	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
7/32	.25	.23	.20	.19	.18	.17	.15	.13	.10	.07	.06
3/16	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
5/32	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
⅛	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
3/32	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07

DIAMETER 9 GAGE

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1 to 2	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
⅞ and ¾	.19½	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
⅝ and ½	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
7/16	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
⅜	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
11/32	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
5/16	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
9/32	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
¼	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
7/32	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
3/16	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
5/32	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
⅛	.31	.28	.25	.23	.22	.21	.19	.16	.12	.09	.08
3/32	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08

DIAMETER 10 GAGE

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1 to 2	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
⅞ and ¾	.20½	.18	.16	.15	.14	.14	.12	.10	.08	.06	.05
⅝ and ½	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
7/16	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
⅜	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
11/32	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
5/16	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
9/32	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
¼	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
7/32	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
3/16	.35	.32	.28	.26	.25	.23	.21	.18	.14	.11	.09
5/32	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09
⅛	.39	.35	.31	.29	.27	.26	.23	.20	.16	.12	.10
3/32	.40	.36	.32	.30	.28	.27	.24	.20	.16	.12	.10

SOLID STEEL RIVETS

Round or Button, Cone, Flat, Truss or Wagon Box, Flat Countersunk, Pan, Section and Belt Heads. Old Standard or Birmingham Gage. American Standard Heads.

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 11 gage—⅛ in. diameter solid steel rivets 1 to 2 in. in length—find the proper length line and follow it along until the 40 per cent column is reached where the correct net price of .13 will be found. Other discounts on varying lengths and diameters are determined in the same manner. **List prices are cents per lb.** as adopted May 19, 1920.

IMPORTANT!—All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

DIAMETER 11 GAGE—1/8 INCH

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1 to 2	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
⅞ and ¾	.21½	.19	.17	.16	.15	.14	.13	.11	.09	.06	.05
⅝ and ½	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
7/16	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
⅜	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
11/32	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
5/16	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
9/32	.33	.30	.26	.25	.23	.22	.20	.17	.13	.10	.08
¼	.33	.30	.26	.25	.23	.22	.20	.17	.13	.10	.08
7/32	.35	.32	.28	.26	.25	.23	.21	.18	.14	.11	.09
3/16	.39	.35	.31	.29	.27	.26	.23	.20	.16	.12	.10
5/32	.42	.38	.34	.32	.29	.28	.25	.21	.17	.13	.11
⅛	.44	.40	.35	.33	.31	.29	.26	.22	.18	.13	.11
3/32	.47	.42	.38	.35	.33	.31	.28	.24	.19	.14	.12

DIAMETER 12 GAGE

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1 to 2	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
⅞ and ¾	.22½	.20	.18	.17	.16	.15	.14	.11	.09	.07	.06
⅝ and ½	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
7/16	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
⅜	.31	.28	.25	.23	.22	.21	.19	.16	.12	.09	.08
11/32	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
5/16	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
9/32	.36	.32	.29	.27	.25	.24	.22	.18	.14	.11	.09
¼	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09
7/32	.38	.34	.30	.29	.27	.25	.23	.19	.15	.11	.10
3/16	.43	.39	.34	.32	.30	.29	.26	.22	.17	.13	.11
5/32	.47	.42	.38	.35	.33	.31	.28	.24	.19	.14	.12
⅛	.52	.47	.42	.39	.36	.35	.31	.26	.21	.16	.13
3/32	.57	.51	.46	.43	.40	.38	.34	.29	.23	.17	.14

DIAMETER 13 GAGE—3/32 INCH

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1 to 2	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
⅞ and ¾	.26½	.24	.21	.20	.19	.18	.16	.13	.11	.08	.07
⅝ and ½	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
7/16	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
⅜	.36	.32	.29	.27	.25	.24	.22	.18	.14	.11	.09
11/32	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09
5/16	.39	.35	.31	.29	.27	.26	.23	.20	.16	.12	.10
9/32	.41	.37	.33	.31	.29	.27	.25	.21	.16	.12	.10
¼	.42	.38	.34	.32	.29	.28	.25	.21	.17	.13	.11
7/32	.43	.39	.34	.32	.30	.29	.26	.22	.17	.13	.11
3/16	.47	.42	.38	.35	.33	.31	.28	.24	.19	.14	.12
5/32	.52	.47	.42	.39	.36	.35	.31	.26	.21	.16	.13
⅛	.57	.51	.46	.43	.40	.38	.34	.29	.23	.17	.14
3/32	.62	.56	.50	.47	.43	.41	.37	.31	.25	.19	.16

DIAMETER 14 GAGE

Length	List	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
1 to 2	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
⅞ and ¾	.28½	.26	.23	.21	.20	.19	.17	.14	.11	.09	.07
⅝ and ½	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
7/16	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09
⅜	.42	.38	.34	.32	.29	.28	.25	.21	.17	.13	.11
11/32	.47	.42	.38	.35	.33	.31	.28	.24	.19	.14	.12
5/16	.52	.47	.42	.39	.36	.35	.31	.26	.21	.16	.13
9/32	.54	.49	.43	.41	.38	.36	.32	.27	.22	.16	.14
¼	.57	.51	.46	.43	.40	.38	.34	.29	.23	.17	.14
7/32	.60	.54	.48	.45	.42	.40	.36	.30	.24	.18	.15
3/16	.60	.54	.48	.45	.42	.40	.36	.30	.24	.18	.15
5/32	.62	.56	.50	.47	.43	.41	.37	.31	.25	.19	.16
⅛	.65	.59	.52	.49	.46	.43	.39	.33	.26	.20	.16
3/32	.67	.60	.54	.50	.47	.45	.40	.34	.27	.20	.17

TINNERS AND COOPERS RIVETS—BLACK

These charts provide a direct short cut in determining net cost or selling prices on the sizes specified. **Example:** Assume a discount of 40 per cent is desired on 6 oz. tinners and coopers rivets—find the proper size line and follow it along until the 40 per cent column is reached where the correct net price of .17 will be found. Discounts on other sizes are determined in the same manner. **List prices are** as adopted May 19, 1920.

IMPORTANT!—All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

Size	List per 1,000	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
6 ozs.	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
8 "	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
10 "	.36	.32	.29	.27	.25	.24	.22	.18	.14	.11	.09
12 "	.41	.37	.33	.31	.29	.27	.25	.21	.16	.12	.10
14 "	.45	.41	.36	.34	.32	.30	.27	.23	.18	.14	.11
1 lb.	.48	.43	.38	.36	.34	.32	.29	.24	.19	.14	.12
1¼ lbs.	.54	.49	.43	.41	.38	.36	.32	.27	.22	.16	.14
1½ "	.62	.56	.50	.47	.43	.41	.37	.31	.25	.19	.16
1¾ "	.67	.60	.54	.50	.47	.45	.40	.34	.27	.20	.17
2 "	.72	.65	.58	.54	.50	.48	.43	.36	.29	.22	.18
2½ "	.83	.75	.66	.62	.58	.55	.50	.42	.33	.25	.21
3 "	.96	.86	.77	.72	.67	.64	.58	.48	.38	.29	.24
3½ "	1.09	.98	.87	.82	.76	.73	.65	.55	.44	.33	.27
4 "	1.20	1.08	.96	.90	.84	.80	.72	.60	.48	.36	.30
5 "	1.30	1.17	1.04	.98	.91	.87	.78	.65	.52	.39	.33
6 "	1.50	1.35	1.20	1.13	1.05	1.00	.90	.75	.60	.45	.38
7 "	1.75	1.58	1.40	1.31	1.23	1.17	1.05	.88	.70	.53	.44
8 "	2.00	1.80	1.60	1.50	1.40	1.33	1.20	1.00	.80	.60	.50
9 "	2.20	1.98	1.76	1.65	1.54	1.47	1.32	1.10	.88	.66	.55
10 "	2.40	2.16	1.92	1.80	1.68	1.60	1.44	1.20	.96	.72	.60
12 "	2.64	2.38	2.11	1.98	1.85	1.76	1.58	1.32	1.06	.79	.66
14 "	3.08	2.77	2.46	2.31	2.16	2.05	1.85	1.54	1.23	.92	.77
16 "	3.52	3.17	2.82	2.64	2.46	2.35	2.11	1.76	1.41	1.06	.88
18 "	3.78	3.40	3.02	2.84	2.65	2.52	2.27	1.89	1.51	1.13	.95
20 "	4.20	3.78	3.36	3.15	2.94	2.80	2.52	2.10	1.68	1.26	1.05

Flat Head Not Pointed

Size	List per lb.	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
6 ozs.	.62	.56	.50	.47	.43	.41	.37	.31	.25	.19	.16
8 "	.52	.47	.42	.39	.36	.35	.31	.26	.21	.16	.13
10 "	.49	.44	.39	.37	.34	.33	.29	.25	.20	.15	.12
12 "	.46	.41	.37	.35	.32	.31	.28	.23	.18	.14	.12
14 "	.43	.39	.34	.32	.30	.29	.26	.22	.17	.13	.11
1 lb.	.40	.36	.32	.30	.28	.27	.24	.20	.16	.12	.10
1¼ lbs.	.35	.32	.28	.26	.25	.23	.21	.18	.14	.11	.09
1½ "	.33	.30	.26	.25	.23	.22	.20	.17	.13	.10	.08
1¾ "	.30	.27	.24	.23	.21	.20	.18	.15	.12	.09	.08
2 "	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
2½ "	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
3 "	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
3½ "	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
4 "	.22	.20	.18	.17	.15	.15	.13	.11	.09	.07	.06
5 "	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
6 "	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
7 "	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
8 "	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05
9 "	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
10 "	.19	.17	.15	.14	.13	.13	.11	.10	.08	.06	.05
12 "	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
14 "	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
16 "	.17	.15	.14	.13	.12	.11	.10	.09	.07	.05	.04
18 "	.16	.14	.13	.12	.11	.11	.10	.08	.06	.05	.04
20 "	.16	.14	.13	.12	.11	.11	.10	.08	.06	.05	.04

Flat Countersunk Head Pointed

Size	List per lb.	DISCOUNTS									
		10	20	25	30	33⅓	40	50	60	70	75
6 ozs.	.66	.59	.53	.50	.46	.44	.40	.33	.26	.20	.17
8 "	.56	.50	.45	.42	.39	.37	.34	.28	.22	.17	.14
10 "	.53	.48	.42	.40	.37	.35	.32	.27	.21	.16	.13
12 "	.50	.45	.40	.38	.35	.33	.30	.25	.20	.15	.13
14 "	.47	.42	.38	.35	.33	.31	.28	.24	.19	.14	.12
1 lb.	.44	.40	.35	.33	.31	.29	.26	.22	.18	.13	.11
1¼ lbs.	.39	.35	.31	.29	.27	.26	.23	.20	.16	.12	.10
1½ "	.37	.33	.30	.28	.26	.25	.22	.19	.15	.11	.09
1¾ "	.34	.31	.27	.26	.24	.23	.20	.17	.14	.10	.09
2 "	.32	.29	.26	.24	.22	.21	.19	.16	.13	.10	.08
2½ "	.29	.26	.23	.22	.20	.19	.17	.15	.12	.09	.07
3 "	.28	.25	.22	.21	.20	.19	.17	.14	.11	.08	.07
3½ "	.27	.24	.22	.20	.19	.18	.16	.14	.11	.08	.07
4 "	.26	.23	.21	.20	.18	.17	.16	.13	.10	.08	.07
5 "	.25	.23	.20	.19	.18	.17	.15	.13	.10	.08	.06
6 "	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
7 "	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
8 "	.24	.22	.19	.18	.17	.16	.14	.12	.10	.07	.06
9 "	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
10 "	.23	.21	.18	.17	.16	.15	.14	.12	.09	.07	.06
12 "	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
14 "	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
16 "	.21	.19	.17	.16	.15	.14	.13	.11	.08	.06	.05
18 "	.20	.18	.16	.15	.14	.13	.12	.10	.08	.60	.05
20 "	.20	.18	.16	.15	.14	.13	.12	.10	.08	.06	.05

LIGHT STEEL WASHERS

Size of Bolt	Outside Diameter	Inside Diameter	Birmingham Gauge	Estimated Number in 100 Lbs.
3/16	9/16	1/4	20 (1/32)	48,500
1/4	3/4	5/16	18 (3/64)	20,000
5/16	7/8	3/8	18 (3/64)	14,300
3/8	1	7/16	16 (1/16)	8,330
7/16	1 1/4	1/2	16 (1/16)	5,250
1/2	1 3/8	9/16	16 (1/16)	4,350
9/16	1 1/2	5/8	16 (1/16)	3,600
5/8	1 3/4	11/16	16 (1/16)	2,700
3/4	2	13/16	16 (1/16)	2,060
7/8	2 1/4	15/16	16 (1/16)	1,750
1	2 1/2	1 1/16	16 (1/16)	1,320

SQUARE WASHERS

For Bolts — 3/8 - 1/2 - 5/8 - 3/4 - 7/8

Outside Dimensions — (2 x 2) - (2 1/4 x 2 1/4) - (2 1/2 x 2 1/2)

Thickness — 1/16 - 1/8 - 3/16 - 1/4

MACHINERY BUSHING WASHERS

Packed in Boxes of 100 Pcs. Each

Inside Diameter	5/8	3/4	3/4	7/8	7/8	1	1	1
Gauge	18	18	14	18	14	18	14	10
Inside Diameter	1 1/8	1 1/8	1 1/8	1 1/4	1 1/4	1 1/4	1 3/8	1 3/8
Gauge	18	14	10	18	14	10	18	14
Inside Diameter	1 3/8	1 1/2	1 1/2	1 3/4	1 3/4	1 7/8	1 7/8	2
Gauge	10	14	10	14	10	14	10	14
Inside Diameter	2	2 1/8	2 1/8	2 1/4	2 1/4			
Gauge	10	14	10	14	10			

COLD FORGED THUMB SCREWS

Steel

Diameter of Screw	Number of Threads	Length of Screw	Unit Packing	Approx. Weight in Lbs. Per 100
1/4" (.250")	20	* 1/2"	100	1 3/8
		5/8"	100	1 1/2
		* 3/4"	100	1 5/8
		*1"	100	2
		*1 1/4"	100	2 1/4
		*1 1/2"	100	2 1/2
		1 3/4"	100	2 3/4
		2"	100	3
		2 1/4"	100	3 1/4
		2 1/2"	100	3 1/2
5/16" (.312")	18	1/2"	100	2 1/4
		* 3/4"	100	2 3/4
		*1"	100	3 1/4
		*1 1/4"	100	3 5/8
		*1 1/2"	100	4
		1 3/4"	100	4 1/2
		*2"	100	4 7/8
		2 1/4"	100	5 1/4
		2 1/2"	50	5 3/4
		2 3/4"	50	6
		3"	50	6 1/2
3/8" (.375")	16	3/4"	100	4
		*1"	100	4 3/4
		*1 1/4"	100	5 3/8
		*1 1/2"	100	6
		1 3/4"	100	6 1/2
		*2"	100	7 1/4
		2 1/4"	100	8
		2 1/2"	50	8 1/2
		2 3/4"	50	9
		3"	50	9 7/8

Diameter of Screw	Number of Threads	Length of Screw	Unit Packing	Approx. Weight in Lbs. Per 100
No. 6 (.138")	32	1/4"	100	3/16
		3/8"	100	1/4
		1/2"	100	1/4
		5/8"	100	5/16
		3/4"	100	3/8
		1"	100	1/2
No. 8 (.164")	32	1/4"	100	3/8
		3/8"	100	1/2
		1/2"	100	1/2
		5/8"	100	9/16
		3/4"	100	9/16
		1"	100	3/4
No. 10 or 3/16" (.190")	24 or 32	3/8"	100	1/2
		* 1/2"	100	5/8
		5/8"	100	3/4
		* 3/4"	100	3/4
		*1"	100	1
		1 1/4"	100	1
		1 1/2"	100	1 1/4
		1 3/4"	100	1 3/8
		2"	100	1 1/2
No. 12 (.216")	24	1/2"	100	1 1/8
		5/8"	100	1 1/4
		3/4"	100	1 3/8
		1"	100	1 3/4
		1 1/4"	100	2
		1 1/2"	100	2 1/4
		1 3/4"	100	2 1/2
		2"	100	2 3/4
		2 1/4"	100	3
		2 1/2"	100	3 1/4

Diameter of Screw	Number of Threads	Length of Screw	Unit Packing	Approx. Weight in Lbs. Per 100
7/16" (.437")	14	1"	50	8
		1 1/4"	50	9
		1 1/2"	50	10
		1 3/4"	50	10 1/2
		2"	25	11 1/4
		2 1/4"	25	12
		2 1/2"	25	13
		2 3/4"	25	14
		3"	25	14 1/2
		3 1/2"	25	16 1/2
		4"	25	18 1/2
1/2" (.500")	13	1"	50	13
		1 1/4"	50	14
		1 1/2"	50	15
		1 3/4"	50	16
		2"	25	17
		2 1/4"	25	18
		2 1/2"	25	19
		2 3/4"	25	20
		3"	25	21
		3 1/2"	25	23
		4"	25	25

Dimension shown for diameter of screw is subject to commercial tolerances.
*Applies to Brass Thumb Screws.

Sell More Washers!

These colorful displays will positively stimulate retail washer sales.

SIZE and DIMENSION WALL CHART

This chart lists the complete range of STANDARD WROUGHT WASHERS, specifying all dimensions, unit weight, etc., and illustrating washers in exact size for easy identification. Measures 12x15 inches and is printed in colors. Write for details.

SAMPLE WASHER DISPLAY PANEL

This display is mounted with actual samples of STANDARD WROUGHT WASHERS, enabling customers to select correct sizes. Measures 9x14 inches, is varnished, printed in three colors, and furnished with both easel and hanger. Write for details.

ORDER WASHERS FROM YOUR HARDWARE JOBBER

TAKE HOME A SUPPLY of Washers
Be PREPARED FOR EMERGENCY REPAIRS AND MENDING NEEDS
A Ready Convenience for Countless Uses around the Shop, Home, Farm, or Work Bench

WROUGHT WASHER MFG. CO.

"The World's Largest Producer of Washers"

2218 South Bay St. Milwaukee, Wis.

IMPORTANT!

All the tables in this discount handbook have been carried from 10 to 75 off standard lists. This has been done to accomplish uniform treatment throughout. The extreme discount of 75 off list is not to be construed as a reflection of manufacturers' or jobbers' prices, or of market conditions.

WIRE GAUGE STANDARDS

DIMENSIONS OF SIZES IN DECIMAL PARTS OF AN INCH

No. of Wire Gauge	American or Brown & Sharpe	Escutcheon Pin Sizes B. W. Gauge	Screw Wire Sizes	Drill Rod Sizes	Chain Wire Sizes W. & M. Gauge
0	.3249	.340	.060		
1	.2893	.300	.073	.227	
2	.2576	.284	.086	.219	
3	.2294	.259	.099	.212	
4	.2043	.238	.112	.207	
5	.1819	.220	.125	.204	.207
6	.1620	.203	.138	.201	.192
7	.1443	.180	.151	.199	
8	.1285	.165	.164	.197	.162
9	.1144	.148	.177	.194	
10	.1019	.134	.190	.191	.135
11	.0907	.120	.203	.188	
12	.0808	.109	.216	.185	.105
13	.0720	.095	.229	.182	
14	.0641	.083	.242	.180	.080
15	.0571	.072	.255	.178	
16	.0508	.065	.268	.175	.063
17	.0453	.058	.281	.172	
18	.0403	.049	.294	.168	.047
19	.0359	.042	.307	.164	.041
20	.0320	.035	.320	.161	.035
21	.0285	.032	.333	.157	.032
22	.0253	.028	.346	.155	.028
23	.0226	.025	.359	.153	.025
24	.0201	.022	.372	.151	.023

BRASS WASHERS

LARGE PATTERN

Size of Screw	Size of Bolt	Outside Diameter	Inside Diameter	Brown & Sharpe Gauge	Estimated Number in 100 Lbs.
8	5/32	7/16	.172	19 (.036)	71,000
10	3/16	1/2	.193	18 (.040)	48,000
12	7/32	9/16	.228	18 (.040)	39,000
14	1/4	11/16	.260	16 (.051)	20,500
16	....	3/4	.282	14 (.064)	13,500
18	....	7/8	5/16	14 (.064)	10,000
20	5/16	7/8	11/32	14 (.064)	10,200
24	3/8	1	25/64	12 (.081)	6,050
	7/16	1 1/8	1/2	12 (.081)	5,050
	1/2	1 1/4	9/16	11 (.091)	3,650
	5/8	1 1/2	11/16	10 (.102)	2,270
	3/4	1 7/8	13/16	9 (.114)	1,270
	7/8	2 1/4	15/16	8 (.128)	760
	1	2 1/2	1 1/16	7 (.144)	550

SMALL PATTERN

3	....	1/4	.101	24 (.020)	400,000
4	....	9/32	.120	22 (.025)	255,000
6	1/8	3/8	.147	20 (.032)	110,000
8	....	3/8	.172	20 (.032)	117,000
10	....	7/16	.193	19 (.036)	76,000
12	....	1/2	.228	18 (.040)	52,000
14	....	9/16	.260	18 (.040)	41,500
16	....	5/8	.282	18 (.040)	33,500
18	9/32	11/16	5/16	16 (.051)	22,000
20	....	3/4	11/32	14 (.064)	14,600
24	....	7/8	25/64	14 (.064)	10,800

WROUGHT WASHERS

LIST EFFECTIVE JULY 15, 1935

MFRS. STANDARD SIZES
IN 200 POUND KEGS

Outside Diameter	Size of Hole	Thickness Wire Gauge	Size of Bolt	Price per 100 Lbs.	Estimated Number in 100 Lbs.
9/16	1/4	18 (3/64)	3/16	$14.00	36,200
3/4	5/16	16 (1/16)	1/4	12.20	14,900
7/8	3/8	16 (1/16)	5/16	11.40	11,100
1	7/16	14 (5/64)	3/8	10.50	6,700
1 1/4	1/2	14 (5/64)	7/16	9.80	4,000
1 3/8	9/16	12 (7/64)	1/2	9.40	2,600
1 1/2	5/8	12 (7/64)	9/16	9.30	2,200
1 3/4	11/16	10 (9/64)	5/8	9.30	1,300
2	13/16	9 (5/32)	3/4	9.20	910
2 1/4	15/16	8 (11/64)	7/8	9.20	652
2 1/2	1 1/16	8 (11/64)	1	9.20	532
2 3/4	1 1/4	8 (11/64)	1 1/8	9.20	454
3	1 3/8	8 (11/64)	1 1/4	9.20	384
3 1/4	1 1/2	7 (3/16)	1 3/8	9.20	300
3 1/2	1 5/8	7 (3/16)	1 1/2	9.20	260
3 3/4	1 3/4	7 (3/16)	1 5/8	9.50	227
4	1 7/8	7 (3/16)	1 3/4	9.50	200
4 1/4	2	7 (3/16)	1 7/8	9.50	176
4 1/2	2 1/8	7 (3/16)	2	9.50	159
4 3/4	2 3/8	5 (7/32)	2 1/4	10.50	121
5	2 3/8	4 (15/64)	2 1/2	10.50	104
5 1/4	2 7/8	3 (1/4)	2 3/4	11.50	91
5 1/2	3 1/8	2 (17/64)	3	12.50	77

TOLERANCES:

Size of Bolt	Inside Diameter Tolerance	Outside Diameter Tolerance
1/4" to 1 1/4"	plus or minus .005"	plus .010" minus .000"
1 5/16" to 3"	plus or minus .008"	plus .015" minus .000"

THICKNESS:

One Gauge up or down. Flat within .010"
Concentricity of hole within .010"
Tumbled to remove sharp corners

NET EXTRAS:

Less than 200-lb. keg 25c flat charge
5-lb. Cartons $1.25 per 100-lbs. extra
1-lb. Cartons $2.00 per 100-lbs. extra

MALLEABLE IRON WASHERS

Size of Bolt	Outside Diameter	Inside Diameter	Thickness at Hole	Estimated Number in 100 Lbs.
1/2	2 1/2	9/16	5/16	533
5/8	2 3/4	11/16	3/8	394
3/4	3	13/16	7/16	276
7/8	3 1/2	15/16	1/2	177
1	4	1 1/16	9/16	126
1 1/8	4 1/2	1 1/4	5/8	85
1 1/4	5	1 3/8	11/16	59
1 1/2	6	1 5/8	3/4	38
1 3/4	7	1 7/8	13/16	28
2	7 1/2	2 1/8	15/16	23

RIVETING BURRS

LIST PRICE PER POUND

IN 100 POUND KEGS
List of May 19, 1920

Outside Diameter	Size of Hole	Thickness Gauge	Size of Rivet	List Price	No. in 1 Lb. Approx.
7/8	25/64	16	3/8	32c	111
3/4	23/64	16	11/32	32c	157
3/4	21/64	16	5/16	32c	150
5/8	5/16	16	No. 1	32c	232
5/8	19/64	16	No. 2 or 9/32	32c	229
5/8	17/64	16	No. 3	32c	212
5/8	17/64	16	1/4	32c	212
5/8	1/4	16	No. 4	33c	207
5/8	15/64	16	No. 5 or 7/32	34c	203
1/2	13/64 full	18	No. 6	38c	457
1/2	13/64	18	3/16	38c	450
1/2	3/16	18	No. 7	39c	435
1/2	11/64	18	No. 8 or 5/32	40c	427
7/16	5/32	18	No. 9	41c	560
7/16	9/64 full	19	No. 10	43c	635
7/16	9/64	19	No. 11 or 1/8	46c	630
3/8	1/8	20	No. 12	56c	1000
3/8	3/32 full	20	No. 13 or 3/32	66c	950
3/8	5/64 full	20	No. 14	76c	942

LIST EXTRAS:

50-lb. lots add 3c to list
25-lb. lots add 4c to list
5- or 10-lb. pkgs. add 5c to list
1-lb. pkgs. add 8c to list

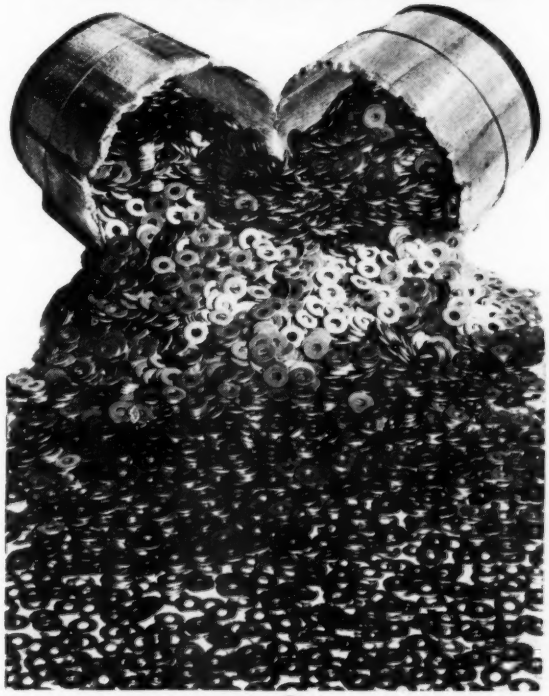
S. A. E. FLAT WASHERS

Outside Diameter	Size of Hole	Thickness	Size of Bolt	Approx. Weight per 1000
3/8	5/32	3/64	6 (1/8)	1.25
7/16	3/16	3/64	8 (5/32)	1.7
1/2	7/32	1/16	10 (3/16)	2.6
9/16	1/4	1/16	12 (7/32)	3.7
5/8	9/32	1/16	1/4	4.5
11/16	11/32	1/16	5/16	5.2
13/16	13/32	1/16	3/8	7.0
15/16	15/32	1/16	7/16	9.5
1 1/16	17/32	3/32	1/2	18.3
1 3/16	19/32	3/32	9/16	22.6
1 5/16	21/32	3/32	5/8	27.7
1 3/8	23/32	3/32	11/16	28.0
1 1/2	13/16	1/8	3/4	46.0
1 3/4	15/16	1/8	7/8	62.0
2	1 1/16	1/8	1	78.5
2 1/4	1 3/16	1/8	1 1/8	104.0
2 1/2	1 5/16	5/32	1 1/4	160.0
2 3/4	1 7/16	5/32	1 3/8	190.0
3	1 9/16	5/32	1 1/2	225.0

WASHERS

Every Keg Contains Nothing But Wrought Washers

All Hand Sorted



No Scrap
No Slugs
No Miscuts

200 Pounds Net Weight Per Keg— Certified

Immediate Shipment From Stock

All Standard Sizes — Kegs or Cartons

Sturdy Cartons Distinctly Labeled

A Line That Includes Every Kind of Flat Washer—

Steel, Brass, Copper, Aluminum, Lead or any metal required;
All finishes:—Galvanizing, Cadmium Plating, Parkerizing, etc.

U. S. S. Washers, S. A. E. Washers, Riveting Washers (Rivet Burrs), Axle Washers, Tire Bolt Washers, Square Washers, Cup Washers, Finishing Washers, Light Steel Washers, Machinery Bushings, Discs, Narrow Rim Washers.

Aircraft Washers, Expansion Plugs, Spacer Washers, Brass Washers, Split Washers, Shim Washers, Plate Washers, Star Lock Washers, Concaved Washers, Starter Lock Washers, Ground Washers, Hardened Washers, Bent Washers, etc.

Also Excellent Facilities for Small Stampings—

Over 15,000 Sets of Tools for Special Washers and Stampings

The MASTER PRODUCTS Co.

Factory and General Office

6400 Park Ave. S.E. **Cleveland, Ohio.**

EMPIRE Fastenings

Their Use Speeds Assembly

R B & W obtains greater mechanical accuracy on EMPIRE Industrial Fastenings due to controlled preparation of raw material, specially designed automatic machinery, and other improved methods of manufacture — because, also, of the invaluable skill and interest of experienced craftsmen, the majority of whom have been trained to R B & W precision and quality over a long period of years.

EMPIRE headed and threaded products have exceptionally well finished heads, smooth bodies, clean threads and accuracy in lead and pitch. Their use speeds assembly and assures precision of fastening because they are uniform—strong—right.

These are points that careful buyers demand and appreciate—they made EMPIRE Industrial Fastenings easy to sell and insure attractive profits when ample stocks are carried. All standard and many special sizes and shapes are manufactured and carried for immediate shipment.

BOLTS
Carriage • Machine • Lag • Plow
Stove • Elevator • Step • Tap
Wire Wheel & Rim • Battery
U-Bolts • Semi-Finished
Automotive Replacement

NUTS
Cold Punched • Semi-Finished
Hot Pressed • Case Hardened
Slotted • Castle

PINS
Clevis • Hinge

RIVETS
Standard
Tinners' • Coopers' • Culvert

SCREWS
Cap • Machine • Hanger

WASHERS
Plate • Burrs

MATERIALS
Alloys
Steels • Non-ferrous Metals

RODS
Stove • Seat • Ladder

PLATED PARTS
Cadmium • Zinc • Chromium
Nickel • Hot Galvanized • Copper
Tin

SPECIAL UPSET AND PUNCHED PRODUCTS

RUSSELL, BURDSALL & WARD
BOLT AND NUT COMPANY
PORT CHESTER, N. Y. ROCK FALLS, ILL. CORAOPOLIS, PA.
SALES OFFICES:
CHICAGO · DETROIT · PHILADELPHIA · DENVER · SAN FRANCISCO · LOS ANGELES · SEATTLE · PORTLAND